DOCUMENT RESUME

ED 225 007	CE 034 915

TITLE	Examination of the Health Occupations Education Curriculum from a Futurist Perspective: III.
INSTITUTION	City Univ. of New York, N.Y. Inst. for Research and Development in Occupational Education.
SPONS AGENCY	New York State Education Dept., Albany. Office of Occupational and Continuing Education.
REPORT NO	CASE-09-82
PUB DATE	Oct 82
GRANT	VEA-53-82-1640
NOTE	150p.; For related documents see ED 198 296 and ED 211 714.
PUB TYPE	Collected Works - General (020) -- Viewpoints (120) -- Reports - Descriptive (141)
EDRS PRICE	MF01/PC06 Plus Postage.
DESCRIPTORS	Adult Students; *Allied Health Occupations Education; Articulation (Education); Colleges; College School Cooperation; Community Colleges; Cost Estimates; *Costs; *Curriculum Design; Curriculum Development; Disabilities; Disadvantaged; Educational Cooperation; Educational Mobility; *Educational Trends; *Futures (of Society); Organization; Postsecondary Education; Program Descriptions; *Program Design; Secondary Education; Sex Fairness; Student Characteristics; Teacher Certification; Teacher Education; Teacher Qualifications; Universities
IDENTIFIERS	City University of New York; *New York; State University of New York

ABSTRACT

This final report describes a project to examine the Health Occupations Education program in New York State from a futurist perspective and contains 18 papers presented at meetings. An introduction summarizes activities of the Health Occupations Review Committee that conducted the project and committee meetings. The first 12 papers address these concerns in health occupations education: types of students who enter health occupations education programs; adult students serviced by health occupations education; sex equity futures for health occupations; the education of handicapped students for the jobs of the future; characteristics of disadvantaged students with specific implications for curriculum design; civil rights issues; teacher qualifications, education, and certification; an overview of the health occupations programs of the State University of New York (SUNY); organizational structure of SUNY community colleges; a nursing articulation agreement with a BOCES occupational center; health programs at the City University of New York; and educational mobility in nursing. The final six papers present cost implications of the committee's preliminary recommendations for the reorganization of the New York State Health Occupations Education curriculum. (YLB)

ED225007

EXAMINATION OF THE HEALTH OCCUPATIONS EDUCATION CURRICULUM FROM A FUTURIST PERSPECTIVE: III

Institute for Research and Development
in Occupational Education
Center for Advanced Study in Education
The Graduate School and University Center
of the City University of New York

in cooperation with the
OFFICE OF OCCUPATIONAL AND CONTINUING EDUCATION
Division of Occupational Education Instruction
The New York State Education Department

CASE #09-82

The program reported on herein was performed under VEA Grant #53-82-1640.

[redacted]

CE 034 915

U.S. DEPARTMENT OF EDUCATION
NATIONAL INSTITUTE OF EDUCATION
EDUCATIONAL RESOURCES INFORMATION
CENTER (ERIC)

☑ This document has been reproduced as received from the person or organization originating it.

☐ Minor changes have been made to improve reproduction quality.

- Points of view or opinions stated in this document do not necessarily represent official NIE position or policy.

"PERMISSION TO REPRODUCE THIS MATERIAL HAS BEEN GRANTED BY

L Cohen

TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)."

Foreword

The Institute for Research and Development in Occupational Education (IRDOE) has been pleased to be the facilitating agency for both the Business Education and the Health Occupations Education futuring projects. Since one of the major aims of Occupational Education is to equip students with skills needed by business and industry, examining such curricula from a futurist perspective is, of course, an ideal technique for maintaining and insuring the currency of curricula, relevancy of plant and equipment, and the competence of instructional personnel.

The Institute, having supported examination of curricula from a futurist perspective from its very inception, takes satisfaction from the fact that these recent efforts were built on earlier projects conducted at the Institute. The bookkeeping study (1972-1973) demonstrated that bookkeeping taught at a secondary level had fallen substantially behind present practices in business and industry. The sharp drop in prices of, and consequent access of businesses to, data processing equipment for bookkeeping and other office procedures made it imperative to examine the Business Education curriculum, since the skills required by business and industry had changed so dramatically.

We are also gratified by the fact that promising developments early in the Health Occupations Education project were an important factor in stimulating the State Education Department to initiate an examination of all other Occupational and Practical Arts Education Programs from a futurist perspective. To have acted in a consultative capacity to the State Education Department in this examination of the remaining curriculum has enriched IRDOE's capacities to serve considerably.

Readers are encouraged to communicate their perceptions and concerns regarding the findings reported herein. The Institute, as always, welcomes varying points of view to insure as wide a base for recommendations as possible.

Lee Cohen, Ph.D.
Director

ACKNOWLEDGEMENT

The Institute for Research and Development in Occupational Education (IRDOE) has acted as the agency for facilitating the work of the Statewide Health Occupations Education Review Committee during this last year. The Institute had primary responsibility for recruiting the speakers requested by the Committee, providing staff support for the conduct of all phases of the project, and for disseminating the project results. During the preceeding year the Health Occupations Education Futuring Project was phased in with the Comprehensive Futuring Project in which all of the Occupational Education and Practical Arts Programs in New York State were examined from a futurist perspective. Thus, the actual meeting arrangements for the Health Occupations Committee during this year were handled by the staff of the Comprehensive Instructional Development Futuring Project at the Oneida-Herkimer-Madison County BOCES, which was in charge of the arrangements for the other six futuring committees as well.

This project has profited from the assistance of colleagues in the Center for Advanced Study in Education, faculty and staff of the City University of New York and, of course, colleagues at IRDOE. The assistance of Ms. Mara Zibrin, who has served as project associate, and coordinated all phases of the project is gratefully acknowledged. Mara has discharged her many responsibilities conscientiously, cheerfully, and with extraordinary competence.

Many other people contributed hard work, ideas, recommendations and suggestions which helped in our task. Dr. Ruth-Ellen Ostler, Program Manager, Health Occupations Education Section, Bureau of Trade, Technical and Health Occupations Education has provided continuing support for the conduct of this project. As the head of the section whose programs were reviewed, not only did Dr. Ostler support the Committee's recommendations, but she gave of herself, her time and her expertise above and beyond what anyone could have expected. Her cooperation and unselfishness are gratefully acknowledged; without them the project would have been severely hampered. Dr. Willard R. Daggett, Director of Occupational Education has supported the work of this project in all phases. Even though there were numerous conflicting demands on his time, including the coordination of the review of the remaining six Occupational Education programs, he has given the Health Occupations Education project his continuing attention and extended whatever help was required.

Dale M. Post, formerly Director of the Division of Occupational Education Instruction, assisted by speaking at various Committee meetings, and supporting the conduct of this project. Gerald L. Freeborne, now Deputy Commissioner for Elementary, Secondary and Continuing Education supported futuring as a major planning tool in Occupational Education. In a time of cutbacks and shrinking resources for education in general and Occupational Education in particular educational statesmanship, courage and wisdom were required for the support of these activities. Our project was fortunate that Commissioner Freeborne, Director Post and Dr. Daggett had all of these qualities in abundance.

Without the support of all of these individuals the project could not have been conducted. We hereby thank them all.

Sigmund Tobias
Project Director

TABLE OF CONTENTS

Page

FOREWORD i

ACKNOWLEDGEMENT iii

TABLE OF CONTENTS v

MEMBERS OF STATEWIDE HEALTH OCCUPATIONS EDUCATION REVIEW COMMITTEE vii

REGIONAL OBSERVERS TO STATEWIDE REVIEW COMMITTEE ix

INTRODUCTION
Sigmund Tobias 1

WHAT KIND OF STUDENTS ENTER HEALTH OCCUPATIONS EDUCATION PROGRAMS
Joyce Lemieux 7

WHO ARE THE ADULT STUDENTS SERVICED BY HEALTH OCCUPATIONS EDUCATION?
George Gides 20

SEX EQUITY FUTURES FOR HEALTH OCCUPATIONS
Mary Ann Etu 26

HANDICAPPED STUDENTS: IS THERE A PLACE FOR THEM IN THE WORK WORLD OF THE FUTURE?
Florence Hoffman 33

SPECIAL POPULATIONS - THE DISADVANTAGED
George R. Quarles 38

CIVIL RIGHTS ISSUES: NOW AND THE FUTURE
Carol Jabonaski 43

TEACHER QUALIFICATION, EDUCATION AND CERTIFICATION - A UNION VIEW
Richard C. Howard 48

HEALTH OCCUPATIONS PROGRAMS ON THE CAMPUSES OF THE STATE UNIVERSITY OF NEW YORK
Ruth E. Baines 54

ORGANIZATIONAL STRUCTURE OF COMMUNITY COLLEGES IN NEW YORK STATE
H. Fredrick Holmes 66

NURSING ARTICULATION AGREEMENT BETWEEN A COMMUNITY COLLEGE AND A BOCES OCCUPATIONAL CENTER AND HOW IT HAS WORKED
Dennis Dempster 68

Page

HEALTH PROGRAMS AT THE CITY UNIVERSITY OF NEW YORK
August A. Tuosto 73

EDUCATIONAL MOBILITY IN NURSING
Gail A. Rosettie 83

COST FACTORS - INTRODUCTION 89

COST IMPLICATIONS FROM AN ADMINISTRATIVE VIEWPOINT
Edmund J. McTernan 90

COST IMPLICATIONS FOR HEALTH OCCUPATIONS
Tom Castelli 95

FINANCING EDUCATION: OCCUPATIONAL AND HEALTH OCCUPATIONS EDUCATION
Mary V. Wiles 103

WHAT ARE THE COST IMPLICATIONS? OR SURVIVAL OF HEALTH OCCUPATIONS EDUCATION IN THE FUTURE
Dorothy E. Fisk 110

CURRICULUM CONSTRUCTION COST FACTORS FOR HEALTH OCCUPATIONS EDUCATION
Joyce Lemieux 114

COST IMPLICATIONS OF HEALTH OCCUPATIONS REVIEW COMMITTEE RECOMMENDATIONS
Joan B. Penrose 123

APPENDIX 131

Members of Statewide Health Occupations Education Review Committee

Committee Member	Institutional Affiliation	Representation
Thomas A. Castelli	Director, Occupational Ed. Rockland County BOCES 61 Parrott Road West Nyack, NY 10994	(1) Education: Occupational Ed. Director
Dorothy E. Fisk	Director, Health Programs Oswego County BOCES Adult Education Center 257 W. Fourth Street Oswego, NY 13126	(2) Education: Health Occupations Education Coordinator
Mary V. Wiles	Assistant Director, Health Careers Bureau NYC Board of Education 347 Baltic Street Brooklyn, NY 11201	(3) Education: Health Occupations Education Coordinator
Edmund J. McTernan	Dean, School of Allied Health Professions Health Sciences Center SUNY at Stony Brook Stony Brook, NY 11794	(4) Education: Dean of Allied Health-4 yr. College
J. Warren Perry	Professor, School of Health Related Professions SUNY at Buffalo 714 Kimball Tower Buffalo, NY 14214	(5) Education: Specialist, Allied Health Ed. & Administration
August Tuosto	Vice President and Dean for Academic Affairs NYC Technical College 300 Jay Street Brooklyn, NY 11201	(6) Education: Dean/Adm. Allied Health-2 yr. College
Joan B. Penrose	Professor, New York Institute of Technology Education Hall, PO Box 170 Old Westbury, NY 11568	(7) Teacher Education: Health Occupations
Stephen Bonnadonna	Vice President for Administration Nassau Hospital 259 First Street Mineola, NY 11501	(8) Large Scale Hospital Administration
Madeline Kerman	Administrator, Government Relations Blue Cross-Blue Shield of Greater New York 3 Park Avenue-27th Floor New York, NY 10016	(9) Major Health Insurance Company

Statewide Health Occupations
Education Review Committee (Con't)

Committee Member	Institutional Affiliation	Representation
James McCormack	Executive Director Health Planning Commission Empire State Tower Building Room 1683 Albany, NY 12237	(10) Medical Economics/Health Planning
Lindsay Robinson	President, Northern Metropolitan Hospital Assoc. 310 Fullerton Avenue Newburgh, NY 12550	(11) Employer: Large/Small Hospitals
Robert S. Graham	Vice President and Principal Medical Officer Medical and Personal Concerns Dept. Equitable Life Assurance Society 1285 Avenue of the Americas New York, NY 10019	(12) Employer: Opportunities in Industrial health centers
Sandra P. Benedict	Director, Patient Care Services NYS Health Facilities Assoc. Inc. 290 Elwood Davis Road PO Box 4938 Syracuse, NY 13221	(13) Employer: Nursing Homes
Richard A. Valente	Director, Team Programs Dentist's/Dental Auxiliaries Dental Office 4220 Harlem Road Snyder, NY 14226	(14) Employer: Dental Field
Leo Kogan	President, Mandl School for Medical and Dental Assisting 254 West 54th Street New York, NY 10019	(15) Education: Private Schools
Donna Ahnert	Teacher, Health Services Practical Nursing Institute Albany-Schenectady-Schoharie BOCES Mt. Pleasant Center Forest Road Schnectady, NY 12303	(16) New York State United Teachers and all HOE Teachers

Regional Observers to Statewide Review Committee

Regional Observer	Institutional Affiliation	Region Represented
John Thomas	Coordinator of Project PEERS Suffolk County BOCES #2 Brookhaven Career Center Martha Avenue Bellport, NY 11713	1-Suffolk and Nassau Counties
Vivian Broaddus	Assistant Principal Supervision of Health Careers Clara Barton High School 901 Classon Avenue Brooklyn, NY 11225	2-NYC: Bronx, Brooklyn, Queens, Staten Island
Mavis Swire	Assistant Principal Supervision of Nursing Julia Richman High School 317 East 67th Street New York, NY 10021	2-NYC: Bronx, Brooklyn Queens, Staten Island
Beverly H. Delano	Coordinator, Health Occupations Education Ulster County BOCES Occupational Center Route 9W Port Ewen, NY 12466	3-Dutchess, Orange, Putnam, Rockland, Sullivan, Ulster and Westchester Counties Major City: Yonkers
Angelina Rivers	Coordinator, Health Occupations Education Albany City School District 470 Myrtle Avenue Albany, NY 12208	4-Albany, Columbia Fulton, Greene, Hamilton, Montgomery, Rensselaer, Saratoga, Schenectady and Schoharie Counties Major City: Albany
Joanne Donohue	Director of Nursing North Country Community College 20 Winona Avenue Saranac Lake, NY 12983	5-Clinton, Essex, Franklin
Joyce Lemieux	Coordinator, Health Occupations Education Northwest Technology Center St. Lawrence County BOCES Park Street Ogdensburg, NY 13669	6-Jefferson, Lewis and St. Lawrence Counties
Athalie Wiley	Coordinator, Work Study/Job Placement Madison-Oneida Area Occupational Ed. Center Spring Road Verona, NY 13478	7-Herkimer, Madison and Oneida Counties

Regional Observers to Statewide
Review Committee (Con't.)

Regional Observer	Institutional Affiliation	Region Represented
Elaine Senn	Instructor, Dental Assisting Broome-East Tioga Occupational Center Upper Glenwood Road Binghamton, NY 13905	8-Broome, Chenango, Delaware, Greene, Otsego, and Tioga Counties
Julienne S. Webster	Instructor, Health Assisting Cortland-Madison BOCES Clinton Avenue Extension Cortland, NY 13045	9-Cayuga, Cortland, Onondaga, Oswego and Tompkins Counties; Major City: Syracuse
Josephine Colacino	Nurse Coordinator Wayne-Finger Lakes BOCES 3501 County Road 20 Stanley, NY 14561	10-Genesee, Livingston, Monroe, Seneca, Wayne, Wyoming, and Yates Counties Major City: Rochester
Marilyn Lynough	Coordinator, Health Occupations Education Schuyler-Chemung-Tioga BOCES Pauline E. Bush Area Occupational Center 431 Philo Road Elmira, NY 14903	11-Chemung, Schuyler, and Steuben Counties
Mary Margaret Hahn	Project Administrator Health Occupations Buffalo Vocational Technical Center 820 Northampton Street Buffalo, NY 14211	12-Erie, Niagara, and Orleans Counties Major City: Buffalo
Marie Pavia	Instructor, Health Services South Cattaraugus Area Occupational Center RD #1, Box 424B Olean, NY 14670	13-Allegany, Cattaraugu and Chautauqua Counties
Kenneth Bessette	New York State Catholic Conference 11 North Pearl Street Albany, NY 12207	New York State Catholic Institutions
Vivienne Batticks	Instructor, Eli Whitney, Voc. High School 257 North 6th Street Brooklyn, NY 11211	United Federation of Teachers/New York State United Teachers

INTRODUCTION

Sigmund Tobias

The purpose of this project was to review the Health Occupations Education program in New York State from a futurist perspective. A futurist orientation is especially vital to the Health Occupations since the equipment, practices and procedures utilized in various health facilities have been changing dramatically. The rapid pace of such change makes it especially important to review the curriculum so that Health Occupations Education programs would continue to prepare students for positions in the health field with the skills, knowledge and attitudes actually required on the job.

The project began in April 1980 with the appointment of the Health Occupations Education Review Committee, listed in the introduction of this report. In addition, a group of Regional Observers was appointed to the Committee to act as communication agents. That is, the Regional Observers informed the Committee of reactions to its work in the field, and, in turn, informed Health Occupation Educators and potential employers throughout the State about the Committee's activities. During the preceeding year four Newsletters containing an account of the Committee's activities were disseminated by the Regional Observers in their regions. Copies of the Newsletter are reproduced in the appendix.

Summary of Committee Activities During the Two Preceeding Years

There were a total of seven Committee meetings during the first two years of this project. At its three meetings in the first year the Committee was addressed by futurists, specialists in human resources, and by a variety of individuals with expertise in areas verging on the Committee's work, including personnel experts and first line supervisors of Health Occupations employees. A detailed description of the activities during that year, from January to October 1980, can be found in the final report of that period.[1]

In the second year the Committee held a total of four meetings, beginning in December 1980 and finishing in September 1981. During that year the Committee considered such issues as credentialing and licensure, the technical competencies requires of Health Occupations Education program graduates, curricular organization for the revised Health Occupations Education curriculum, and supervised clinical experience. A more detailed description of the Committee's activities is available in the annual report of that period.[2]

12

The final report completes the major work of the Committee. The final recommendations of the Committee were published during this year,[3] disseminated throughout the Health Occupations Community in New York State, and presented to the Board of Regents for their consideration.

Committee's Activities During Preceeding Year

Partially as a result of the progress achieved by the Health Occupations Education Review Committee the New York State Education Department initiated a futuring project reviewing a number of other occupational and practical arts programs in May 1981. As a result of the deliberations of this comprehensive project some portion of the agenda for Health Occupations Education meetings during the preceeding year was taken up with items that were to be examined by the Health Occupations Education Committee in concert with the other futuring committees.

There were a total of four meetings during the preceeding year, all of them held in Albany, New York. With the exception of the last meeting, in June 1982, the Health Occupations Education Committee met in conjunction with the other futuring committees, though the Health Occupations Education agenda was somewhat different from that of the other committees.

Eighth Committee Meeting, November 19-20, 1981.

This meeting was devoted to a discussion of the role of Health Occupations Education within the Occupational and Practical Arts Education Program. This part of the agenda was common for all of the futuring committees. The Health Occupations Education Committee, together with the other committees, made a series of recommendations to the Administrative Committee (coordinating the work of all the futuring committees) regarding the content of the Occupational Education Core. The second topic, also taken up by the other Committees, dealt with the student populations served by the Health Occupations Education curriculum. One of the issues discussed was the special needs of different secondary and adult student groups, including the handicapped and disadvantaged as well as other protected groups. The issue of sex fairness in Health Occupations Education was also considered.

The issues of teacher qualifications, certification and education were also discussed at the eighth meeting. The Committee was addressed by representatives from two New York State teachers' organizations and by Vincent Gazetta who is the Director at the Division of Teacher Certification for the New York State Education Department.

Finally, the Committee Completed its discussion of supervised clinical experience. The recommendations emerging from this meeting, and from the preceeding meetings can be found in the Final Report of the Committee.[3]

Ninth Committee Meeting, January 13-14, 1982.

At this meeting the Health Occupations Education Committee and the other futuring committees discussed the general issue of articulation with post-secondary programs. In addition, the Health Occupations Committee discussed articulation with other secondary programs having potential overlap with Health Occupations Education, such as Health Education, Science Education, Business Education, and Home Economics. Finally, articulation with the guidance community was discussed. Presentations were made by representatives of the various areas described above, and copies of some of these papers may be found in this Final Report.

At this meeting the Committee also discussed the problem of clinical evaluation. Since many of the competencies required of Health Occupations Education students include clinical performance, issues in assessing such performance were discussed.

Tenth Committee Meeting, Marth 17-18, 1982.

At this meeting the Health Occupations Education Committee, in common with the other futuring committees, discussed the Occupational Education Core Competencies identified by the Health Occupations Education Review Committee and compared them to those identified by the other committees. In addition, the Committee discussed the question of changes in the Commissioner's Regulations that might be required by the Committee's preliminary recommendations. Finally, the Committee discussed the cost implications of the preliminary recommendations and compared these to the cost of implementing other types of recommendations.

Regional Meetings, April-June, 1982.

After the March meeting, a series of meetings in the 14 Occupational Education Planning Regions of New York State were held. Each of these meetings was addressed by the Regional Observer for that particular area, by a representative of the Health Occupations Education section of the State Education Department, and by the Project Director or Project Associate from the Institute for Research and Development in Occupational Education. The meetings were held in order to obtain reactions from the Health Occupations Education community to the Committee's preliminary recommendations. In addition to obtaining the verbal reactions of those in attendance, position papers were accepted for transmittal to the Committee, and an attitude questionnaire was completed by those in attendance in order to obtain people's attitudes toward the Committee's preliminary recommendations.

Eleventh Committee Meeting, June 16-18, 1982.

At the last meeting of the Committee the reactions to the Committee's preliminary recommendations as determined in the regional meetings were discussed. The Committee considered the results of the attitude questionnaire and the verbal reactions voiced at each of the regional meetings. Where appropriate, and necessary, the Committee modified its preliminary recommendations and/or made additions to the final report.

Paper Presentations

Many of the presenters at the Committee meetings during the preceeding year prepared formal papers. All of those papers are reproduced in this Final Report. In addition, a number of informal presentations were made for which papers were not prepared. The persons making those presentations, their affiliation, and the general topic of the presentations appears below.

Vincent Gazetta, Director, Division of Teacher Certification, NYSED
"Teacher Certification"

Charles Santelli, Director, Research and Education Services, New York State United Teachers
"Union View Regarding Teacher Certification"

William Sippel, Executive Secretary, Opthalmic Dispensing, Occupational Therapy and Physical Therapy, The Office of the Professions, NYSED
"Articulation with Programs in Higher Education & Health Technology"

Frances Bernstein, Chief, Bureau of School Health Education and Services, NYSED
"Articulation with Health Education"

Douglas S. Reynolds, Chief, Bureau of Science Education, NYSED
"Articulation with Science Education"

Janet T. Stout, Associate, Bureau of Home Economics and Industrial Arts Education, NYSED

"Articulation with Home Economics"

Gwendolyn Ripp, Associate, Bureau of Guidance, NYSED
"Articulation with Guidance"

Robert Fleig, Associate, Bureau of Business Education, NYSED
"Articulation with Business Education"

Robert Jaffarian, Associate, Bureau of Business Education, NYSED
"Articulation with Business Education"

FOOTNOTES

[1] "Examination of the Health Occupations Education Curriculum from a Futurist Perspective: I." Institute for Research and Development in Occupational Education, Center for Advanced Study in Education, The Graduate School and University Center of the City University of New York, October 1980.

[2] "Examination of the Health Occupations Education Curriculum from a Futurist Perspective: II." Institute for Research and Development in Occupational Education, Center for Advanced Study in Education, The Graduate School and University Center of the City University of New York, October 1981.

[3] "Looking Towards the Future in the Health Occupations." Recommendations of the Statewide Health Occupations Education Review Committee. Institute for Research and Development in Occupational Education, Center for Advanced Study in Education, The Graduate School and University Center of the City University of New York, October 1982.

WHAT KINDS OF STUDENTS ENTER HEALTH OCCUPATIONS EDUCATION PROGRAMS

Joyce Lemieux
Northwest Technology Center
St. Lawrence County BOCES

Introduction

The most frequently asked question when interviewing candidates for health occupations programs is, "Why do you want to be a health care provider?" The response most often received is, "Because I like to help people." What, exactly, does helping people mean?

The art of helping is a process that requires two basic qualities of the helper; liking people and wanting to help people. These two qualities alone, are inadequate in terms of fulfilling the task of becoming a skilled helper. There is much more involved in learning the art of helping; such as, specialized coursework, physical and emotional demands, and concern for success. Thus, students who are interested in learning how to provide competent health care, must be made to realize that they are about to embark on a most demanding learning process in terms of self-sacrifice. Yet, how can teachers provide students with an awareness of the degree of self-sacrifice prior to the learning process? Much of it depends upon the types of students involved and the instructional methods employed in the educational program. Most health occupations students display an attitude of concern for other people. Working with others in a friendly situation is usually a high value in their social dimension. Generlly, students in health occupations programs demonstrate a warm, congenial, accepting attitude toward others. They express a strong need to be needed and enjoy active involvement in group dynamics.

This paper consists of a two-part presentation. First, there is an overview of the descriptive materials and activities used to help determine what kinds of students enter health occupations programs. Second, there is an explanation of one type process that was developed and implemented in a health occupations program curriculum in order to assist enrolled students to meet their needs. The exemplary student group used for the presentation is composed of high school juniors and seniors plus adults. (Anyone who has graduated from high school, regardless of age, is considered an adult). Academically, they range in ability from low average to exceptional students. Economically, they are products of low to average income families. Socially, they might be termed unsophisticated if removed from rural northern New York. Their exposure to general health careers most typically takes place through contacts with friends and family members who are already employed in varied health settings. Other exposures occur in public health clinics during the growth process, at school observing school nurses and through conducted activities in local health facilities such as candy-striping programs. Personal experience with physicians and hospitalizations are a further contributing factor in terms of their desire to enter health occupations programs.

In St. Lawrence County, the two health occupations program offerings are nurse assisting and practical nursing. Eighty-four percent of the beginning students are high school juniors. The attached graphs depict the percentage distribution of one typical group of entering students in terms of age and ability and also placement in jobs on completion. (See attachment #1, 1a and 1b).

Their initial exposure to the health career offerings at BOCES occurs during an eighth grade general orientation program that is coordinated through the area occupational centers and the component home schools. Later, as sophomores, they receive the opportunity to participate in a structured activity on career explorations. Additionally, as sophomores, they may elect to spend a scheduled day in visitation at the area occupational center viewing the program of their choice. These activities are maintained through coordination of guidance services between the high school and vocational counselors. Once students make the decision to enter health career programs they are scheduled for the screening process.

The Screening Process.

The purpose of this screening process is to guide students into appropriate occupations; not to eliminate them from programs. The followig descriptive materials and activities are utilized in the screening process to help determine what kinds of students enter health occupations programs.

Secondary students and adults who have expressed interest in health occupations begin their screening process in March of each year. Before a positive recommendation is made for enrollment, the following factors are considered:

- the high school/college transcript
- results of the California Test for Mental Maturity
- three character references
- an interview with the Health Occupations Coordinator
- a parent interview
- results of a physical examination

Information and data received from these materials and activities help to reveal the types of students that enter the health programs.

The first consideration is a review of the transcript. The student's academic background and achievement is carefully scrutinized; particularly in the areas of science, math and English. Other factors of interest are reading comprehension and the student's depth of involvement with a science background. Those students who are interested in health careers beyond the secondary level are usually enrolled in a regent's program with science and math courses beyond the biology and algebra levels. Typically, anyone interested in achieving the practical nurse or nurse assistant level will, at the time of screening, be enrolled in biology and algebra. The transcript review further indicates whether or not the student is academically oriented. This is made apparent by the depth of coursework in a sequence and grade achievement.

The second consideration is the result of the student's performance with the California Test for Mental Maturity. Although other types of standardized tests have been tried over a period of years, the CTMM has proved to be the most suitable in terms of providing adequate and appropriate information for this situation. The test results indicate the student's functional capacities that are basic to learning, problem-solving and responding to new situations. It also serves as an instrument to identify students who are presently achieving above or below expectancy in terms of their potential. From this perspective, the transcript and test are useful comparison instruments for untapped academic potential in the student. In the past, such a comparison has helped teachers to realize the value of adequate challenge as a stimulus for motivation in the learning process. Many borderline ability students have realized success beyond their expectations as a result of having motivational needs met through relevant learning experiences.

The third consideration is the character reference. Such personal characteristics as integrity, initiative, self-confidence, emotional stability and responsibility are assessed on the character reference. It is specified that the reference forms be completed by counselors, teachers and employers because those persons are the individuals who generally spend appropriate time with the candidate for a realistic appraisal. Some of the personal values that are frequently disclosed with the character reference are intellectual curiosity, the need to be recognized, independence, responsibility and efficient ways of performing tasks and the value of decision-making.

The fourth consideration is the interview with the Coordinator. A student's ability to appear friendly and communicative in a stressful situation might well be tested during an interview. Varying degrees of nervousness and anxiety in new environments are clues to how a student might react to stress in the clinical component of the health occupation program. The purpose of the interview is to provide students with information in terms of what is expected of them during the learning process and also to receive information from the students in terms of their feelings about school life, study time, social life, authority figures, and career goals. Much insight is gained on the students verbal and writing skills. Usually, the average student is quite reticent at the onset of an interview but becomes more overt as the interview continues.

The fifth consideration is the parent interview. Information giving and receiving in terms of the student's goals and expectations is instrumental in helping students to realize their true potential. The communication process that exists between teachers and parents is often the pivotal point in helping students learn how to make decisions and problem-solve. Most parents of health occupations students have little comprehension of the degree and types of demands imposed by the health occupations program curriculum. Many social and economic problems that influence a student's overall performance and behavior pattern are revealed during the parent interview. An awareness of the student's home environment frequently guides the teaching staff when problems surface.

The sixth consideration is the physical examination result. The physician's assessment of the student's physical and emotional health provides insight on the degree and level of performance that might be expected from the student. The presence of conditions and/or problems such as diabetes, weight, vision, blood pressure and family medical history might be influencing factors in the student's attitude and behavior. Average students are generally vibrant, energetic individuals who are enthusiastic in terms of work expectations in the clinical setting. The requirement for the physical examination lays the groundwork for the student's future attitude toward the importance of good physical and emotional health as a health care provider.

A Process Developed To Meet Student Needs.

Once it is learned what types of students have entered health occupations, it becomes apparent that the student's maintenance and motivational needs must be met if students are to be retained. Successful health occupations students need to learn how to grow, adjust and change in order to help themselves and others. At an October 1981 craft committee meetings, St. Lawrence County Health Industry employers stated that the most important characteristics of a beginning health care provider are honesty, sincerity, compassion, ethical behavior, courage to question and responsibility to practice safely. It was emphasized at the meeting that basic principles should be taught so that skills may be applied to a variety of situations. Health care providers are expected to be able to adapt to new situations with expediency. It was recommended that teachers emphasize the relationship of goal achievement in the educational process to job satisfaction in the work setting. In the 1980 edition of Stress by Tom Cox, it was stated:

> In both education and industry, there must be:
>
> 1. mentally challenging work with which one can cope successfully
> 2. personal interest in the work itself
> 3. rewards for performance which are consistent with one's aspirations
> 4. working conditions which allow the job to be completed satisfactorily and which are not physically demanding
> 5. high self-esteem on the part of the worker
> 6. basic values which are not violated by any of the above factors.

Once the individual is employed, absence of the above factors might result in:

1. ill effects of the employee's physical and psychological health
2. poor interpersonal relations and productivity
3. high employee turnover
4. absenteeism
5. high accident rate.

In Lt. Lawrence County BOCES health occupations programs, notably, students who withdrew or changed career fields did so at the time of scheduling for clinical rotations. Those who remained, appeared to experience extreme difficulty adapting to effective performance in the clinical setting. These same students most decidedly demonstrated the desire for wanting to help people. Yet, they appeared to be fearful of approaching patients, lacking in self-confidence and reluctant to take on clinical assignemnts. The students said it was because they didn't know how to talk to patients and were apprehensive about asking questions of hospital personnel. This type of behavior and attitude was consistently observed in students over a period of approximately five years. The nursing instructors believed that the students liked their patients and wanted to provide care. The challenge for the teachers was how to get the students from a desire for providing care to competency in care provision.

In an attempt to meet student needs, a new approach to teaching communication skills was implemented in 1978. It was felt by the nursing staff that the educational process for health care providers should include learning experiences in values clarification, self-esteem, transactional analysis, decision making, stress control and assertiveness. The proposal for an inservice grant to develop such coursework was presented to the Board of Cooperative Educational Services. The objective was to facilitate the transition process of students from a stage of inexperience and adolescence to one of maturity and responsibility for effective health care provision. The proposal was accepted and the inservice grant was approved.

On implementation, the course was presented on an idividualized instruction basis in the form of learning activity packets. (LAP) Initially, there were eight LAPs prepared and they addressed the following topics:

1. transactional analysis
2. values clarification and self-concept
3. defensiveness
4. empathy
5. listening
6. nonverbal communication
7. semantics
8. conflict resolution

At the beginning of each year, new students were provided with a resource text on interpersonal communication and the LAPs. Tapes, filmstrips and other audio-visual materials were made available to students. To encourage group interaction, the classroom environment was maintained as unstructured as possible. Instructors were available as guides and resource persons rather than imparters of knowledge. Throughout LAP completion, students kept a written account that later served as a journal of personal feelings about their completed activities. On completion of each LAP, students were expected to meet specific competencies. Periodically, there were informal sessions conducted during which the students and instructors collectively shared thoughts, feelings and certain experiences related to specified topics or issues. The purpose of these sessions was to help students learn how to clarify personal values that were certain to be encountered in health care provision and throughout life. It was believed by the faculty that awareness of one's own values and recognizing those of another would deepen the understanding of oneself and others; thereby strengthening the person's role in communication. The new course proved to be highly effective in four ways. It facilitated recognition of individual gorwth in self-awareness and confidence, assisted students to function more effectively in the area of interpersonal communication, met the student's learning needs on an individual basis and reduced the attrition rate due to problems in effective communication.

Since 1978, the course on Communication Skills has been incorporated within the curriculum in health occupations programs as well as that of other BOCES offerings. Other LAPs are being developed on stress control, assertiveness training and time management. Students continue to provide positive comments on their personal growth as a result of their experiences during LAP completion. (See attachment #2)

Conclusion

The types of students who enter health occupations programs are dedicated, caring individuals who seek to realize their true potential in terms of the helping process as health care providers. It is hoped that the kinds of students described in this paper will continue to seek entrance to the health care field. They are people who demonstrate a genuine concern for others.

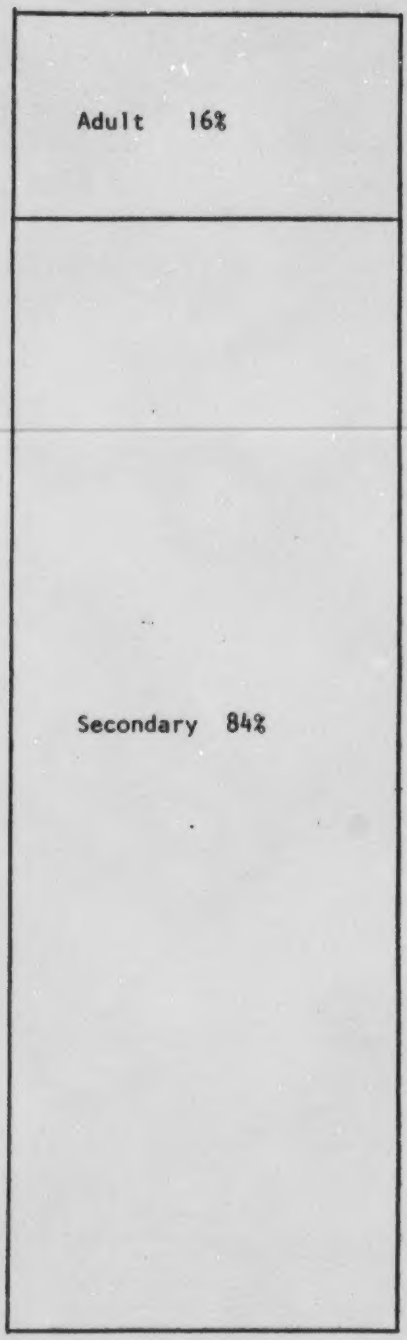
One final item to be shared is the behavioral objective that is provided for entering students of health occupations programs in St. Lawrence County BOCES. It reads:

> On completion of this program you will be able to meet these competencies-
>
> 1. Comprehend specialized coursework
> 2. Apply coursework to practice
> 3. Realize your career goal
> 4. Employ effectively your skills

The beginning letter of each competency spells our the word CARE. The graduates of health occupations in St. Lawrence County feel cared for, they know how to care and they are effective health care providers.

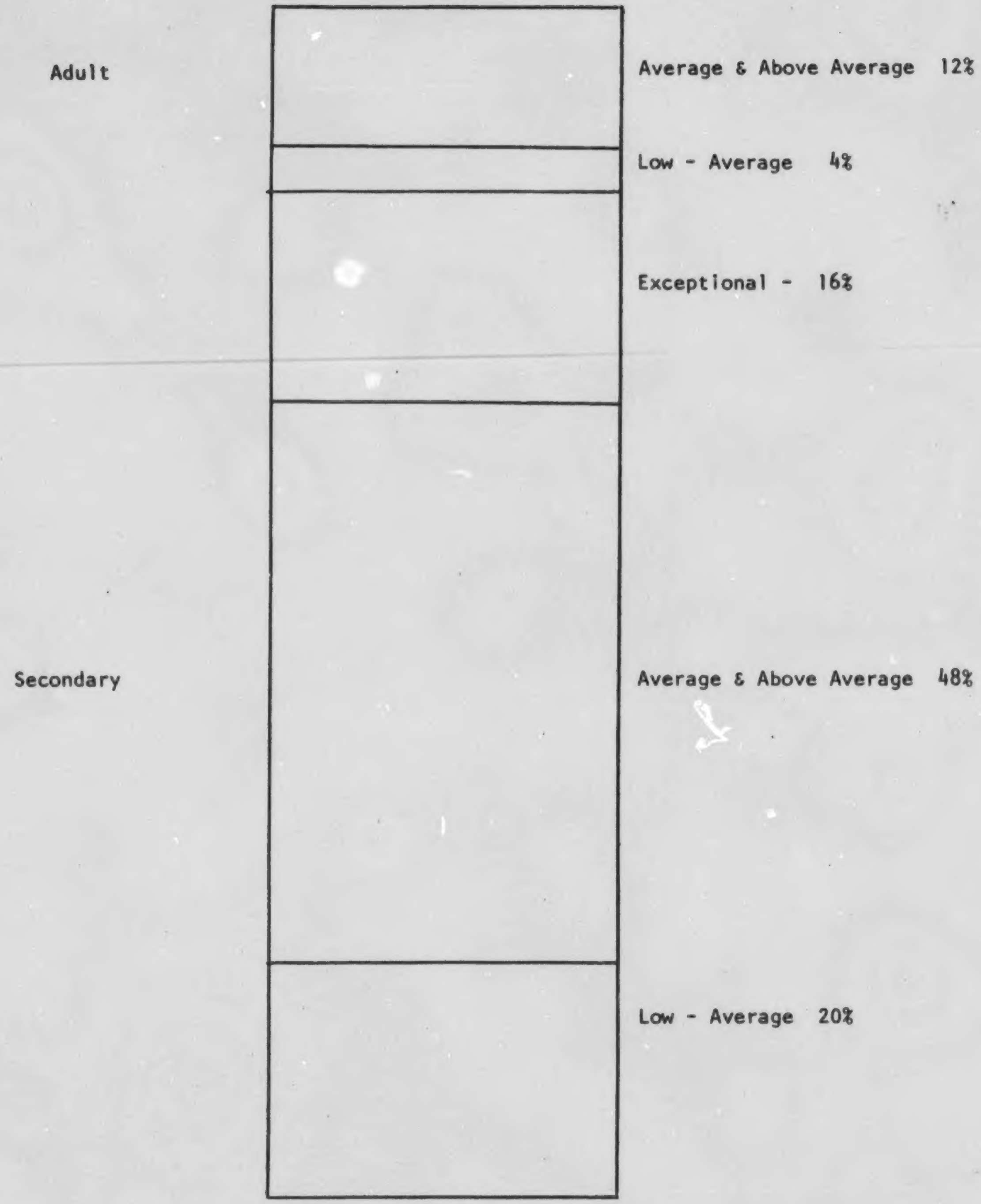
1

ENTERING HEALTH OCCUPATIONS STUDENTS AT ST. LAWRENCE BOCES



Percentage distribution in terms of age

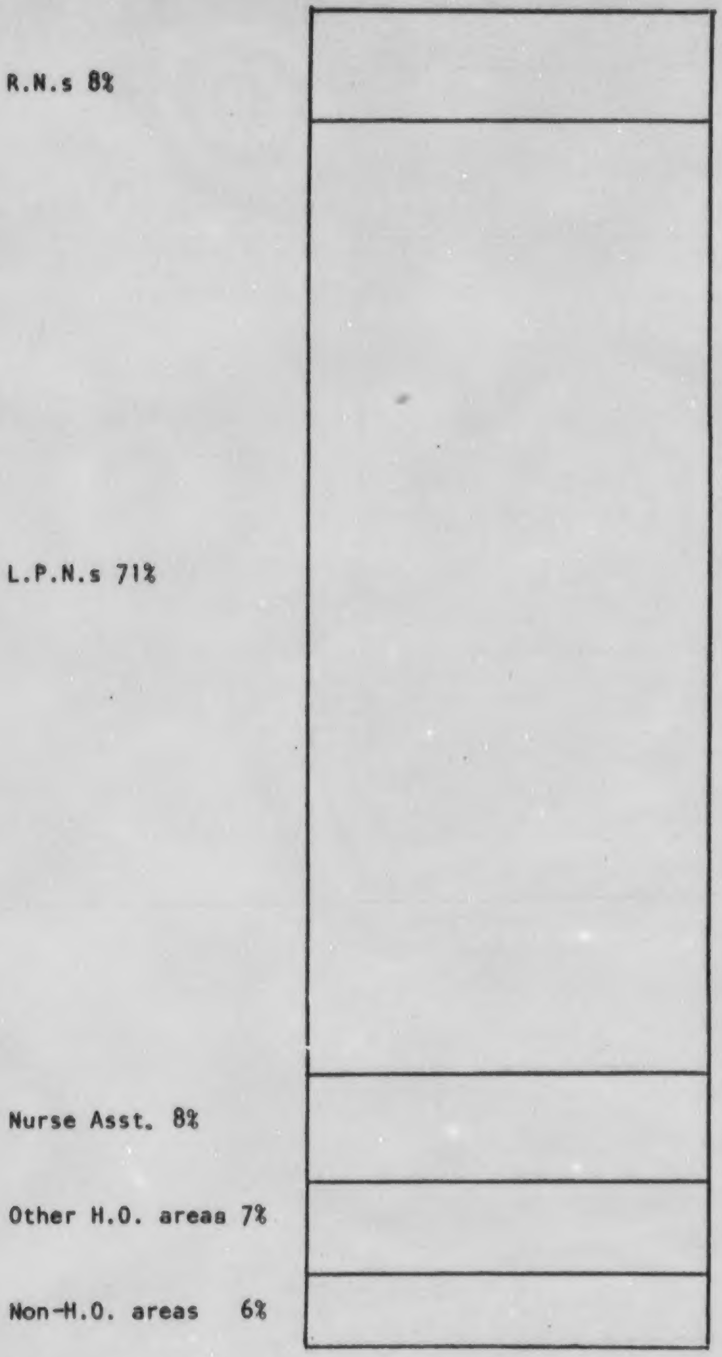
1a



Percentage Distribution in terms of ability

1b

HEALTH OCCUPATIONS PROGRAM COMPLETERS



Percentage distribution in terms of employment
Data from a seven-year placement study

ST. LAWRENCE COUNTY DEMOGRAPHIC, EDUCATIONAL & WORK FORCE DATA

(largest county in NYS and in US-east of Mississippi)

Square miles- 2,767   Total population- 119,434   Total employed-95,173

Total Enrollment 11th and 12th grades- 3,732
Total Enrollment at BOCES - 1,207 > 32% attend BOCES
HOE Programs Annual Enrollment - 60   5% of total BOCES enrollment

---

Average Annual Job Openings for PNs
NAs
HHAs > 402 - 15% receive HOE at BOCES

Total Employed as PNs, NAs, & HHAs - 3,878

Unemployment Rate in St. Lawrence County for ages 16-19 (1979 figures) 25%

1980 statistics

ATTACHMENT 2

Student Comments On Communication Skills

1980

- I thought the course was important and I could see how it would help me relate to other people.

- I think that this is a course that everyone should have to take. I still am not outgoing, but I do talk more and am more conscious of what I say.

- I like this course very much. I'm interested in the way other people think and react.

- I feel this course has helped me a great deal and I am achieving more in communication skills than I had in previous years. I truthfully wish I had devoted more time to it.

- I feel I can talk to people a lot easier. I learned more about opening up and talking things out.

- Doing these LAP's and sharing with an instructor showed me a lot of things about myself that I never knew before. Even though I am not as open as I'd like to be, I see, as I meet new people, I am less nervous about communicating. I have learned to respect people more.

- The LAP's were difficult for me--I couldn't always understand things. Communication Skills did help me to know little tricks in talking to people; helped me to respond better.

- I found these LAP's very difficult to do--maybe I don't like dealing with myself. I have found out that I do not have a real close relationship with anyone. I have many close friends and relatives, but I do not share my real self with anyone. I was not sure these LAP's were beneficial to myself or anyone until I saw one young girl share something with an instructor. She is extremely shy but I have seen a very slow change in her--have even seen her smile, which is something that was a long time coming! In the beginning of the year I didn't believe a muscle moved in her body, she was so tense. When we started the LAP's, I said to myself, "What good are these?" But when I saw this young girl being drawn out by an instructor, I saw progress. I knew then that these LAP's on communication are good and beneficial.

- The LAP's were really good. Some of the exercises were great in giving you insight to how your patient sees you and how the patient feels. The LAP's were a good learning experience.

- When I first started this course, I was doubtful but I was hopeful and gave it honest effort. Now I feel good about it--it has helped me a great deal. I have a better understanding of the real meaning of communication. I understand myself, my family, my friends, and my co-workers more. I have been putting into practice the steps and guidelines that I found to help me, improve me as a person, mother, wife, worker, and student. I really feel good about myself and others. I'm sure this course will help me in many, many years to come. It is an asset to the LPN Program and to the individual who takes part.

- As I see this course coming to an end, I have deep feelings of regret. Although the knowledge and insight I acquired will stay with me forever, I will miss the informal classes and the opportunity to discuss problems openly. I must be honest and admit that I didn't have much faith in the course in the beginning. How wrong I was! I will be forever grateful for the closeness it promoted between me and my family. I am learning to understand myself a little better and I feel this is the first step toward a better understanding of mankind. I hope everyone will benefit from this course as much as I have. it certainly will help bridge the communication gap.

- I'm very glad I took the course. Learning what communication is all about seems to make it easier to deal with a person or just to talk to someone.

- I don't communicate as well as I would like to, but I do better at talking with people after completing the LAP's. I feel better after doing them.

- The LAP's have helped me to cope with my everyday living problems. I'm glad that we had the course in Communication Skills.

- In my opinion, the communication class was superb! It helped me to realize that I was important. It is indispensable when my patient can't speak yet I can still understand what the patient is saying. I truly loved this course. It will be with me a lifetime. I watched a friend of mine turn from a "bucket of jitters" into a woman who could say what she wanted without getting frustrated.

- This course is a very important part of nursing. I can deal with my family and stress 100% better than I could before. By following the proper steps of communications, you can achieve any goal you really want.

- I don't think the importance of this course was stressed enough. I found everyone to be more aware of themselves and others.

- The LAP's didn't really help me out at all. On the other hand, I think I could have done a better job.

- I thought this course was very interesting and very good. Taking a course like this proves to yourself that a person can do many things if they put their mind to it. If I could, I would recommend a course like this to my friends because they are either shy or have a problem they don't know how to deal with.

- I think the most important way I've changed because of this course, is that I'm now more confident of giving warm fuzzies. I tend to give them so that they are more acceptable to the receiver. I also feel more confident about listening to other peoples problems.

WHO ARE THE ADULT STUDENTS SERVICED BY HEALTH OCCUPATIONS EDUCATION?

George Gides
Albany Adult Learning Center

At great risk of creating an initially negative atmosphere concerning the adult population, I will proceed by first presenting some data and facts, which like the daily news, can be somewhat depressing. Then I'll illustrate some statistics which represent a more positive flow of affairs. Finally, I'll present some suggestions which might serve to accommodate adults who wish to become employees in the Health Occupations.

Academically speaking, the general population's reading and math skill levels have been dropping for two decades. These slight yet discernable differences have been found in the norming studies of the GED exams, California Achievements Tests, Tests of Adult Basic Education and most notoriously, in the results of the Scholastic Aptitude Tests. The American Council of Education has recommended that some states raise the standard score levels at which they grant the High School Equivalency diploma because of the relatively small number of questions a candidate would need to answer correctly in order to favorably compare with the high school seniors norming group. The small number of correct answers needed at present is very close to chance level.

In a related area, the high school drop out rate is increasing yearly. Nationwide, 25 million women and 22 million men, 16 years or older, not currently enrolled in school, are lacking a diploma. New York in 1980 was the leader of the nation with 6 million uncredentialed people and an estimated 700,000 immigrants, who need either a diploma and/or English as a Second Language (ESL) training. The 1970 census revealed that in New York there were 1,560,210 adults with less than an 8th grade education. Refer to the insert labeled Adult Basic Education 1979/80, Student Demographic Composite to see the composition of the people who chose to partake of Adult Basic Education (ABE) classes. The figures are skewed considerably because of the inclusion of New York City. As an example, Albany would show a much lower participation rate by Hispanics, a similar rate of Asians and a higher rate of Blacks and Whites. Departing from these demographic facts, we shall in this section, consider some societal factors. We live in a time where most families feel they must have two or more jobs or jobholders in order to meet their ordinary living expenses. Single persons with or without dependents must seek well paying jobs, i.e., those which pay greater than the minimum wage. Also, the divorce rate in our nation continues to climb higher, putting an additional strain on the parent who retains custody of the children. There is overwhelming need for adequate child care services so that these parents may be employed.

At this point, let's look at the more positive trends and facts. Adult learners are different from adolescents. As a group, they have more responsibilities to shoulder and more experience at life. The resultant force of those two factors promote a highly motivated, determined and committed group of individuals. They need to support themselves and their families, have had more time to assess their vocational interests, have little time or money to waste, and so, they go about the task of learning with an uncommon zeal. In the realm of ABE and GED training, the average academic gain statewide is 1 grade equivalent per 200 hours of instruction. That equals approximately one grade level of growth every 2 months, as oposed to that growth in a 10 month period in the elementary and secondary school. And these are dropouts! Refer to Adult Basic Education 1979/80 Program Evaluation sheet for further goal achievement data. One fact to be gleaned from it is that about one fourth of the ABE students who were on welfare during the year are no longer on public subsistence. The implication is that education promotes self-sufficiency.

Self-sufficiency seems to be reflected by individuals interested in the general education diploma. Eighty-three thousand adults took the exams in New York in 1980, double the number tested in 1970. Of this group, 40% stated that they want the diploma for job related reasons and 30% to qualify for further education. The average age of the GED candidats has dropped in the last 10 years from 29.1 to 25.1 years. This all points to an increased realization by the post adolescent population that a credential is a valuable key to employment. Forty-two thousand New Yorkers received that credential in 1980 through the testing process.

Additionally, many of the ABE and GED students received Life Skills Employability training in addition to academics. This traiing is particularly useful in enhancing employability, communication and interpersonal skills, all of which rated Number 1 emphasis on the survey presented in Futuring Project Newsletter No. 4

So, who is the adult learner? She is the mother of two children, 26 years old, separated from her husband. She wishes to raise her children in dignity, help them with their homework, provide them with a role model and sense of security. She functions at an 8th grade level in math and reads at a 10th grade level. With about 2 months of classes, she'll be able to pass the GED exams and function at a level which allows her to succeed in an LPN training course. One of her children is in school but the other needs day care.

Her case typifies some of the barriers to getting an education as stated in the New York State Adult Education Needs Assessment findings of 1978. These barriers include: child care, financial arrangements, transportation. Let's look at a couple of ways each of these barriers might be overcome and what the implications are for health occupations educators.

In order to circumvent child care problems, classes could be held when child care services are most available. In the evening, teenage baby sitters are often available at a reasonable price, spouses or other family members may be able to care for the children for a short time, child care pools could be organized by the students and church groups might be interested in provided child care facilities. If the school is currently training early childhood instructors, perhaps the trainees could care for the children as part of the trainees' internship. One easy way to asist the student in his/her responsibilities is to publicize available child care facilities.

Financial arrangements can be made in a variety of ways. To the extent that it is appropriate, students should be assisted in attaining Pell Grants, Tuition Assistance Program Grants, government student loans and veterans educational benefits. Other alternatives to provide for assistance include contacting employers to promote stipended apprenticeships and On the Job Traning situations. As an added incentive, employers can be apprised of the Targetd Jobs Tax Credit benefits which are available to them through the Federal Government. They may also be encouraged to consider the concept of time sharing wherein the employee conducts his studies partly on company time and partly on his/her own. These alterntives relate back to the child care situation because each of them lessens the amount of time outside of normal working hours, that a babysitter is needed.

One remaining barrier needs to be discussed and that is the area of transportation. When there is a choice of sites in which to conduct the training, the site with the greatest number of bus lines in its vicinity should be chosen. Car pools could be advertised or organized. An ambitious student might be willing to pick-up and deliver other students for a fixed fee.

Taking all these barriers into consideration, Health Occupations Educators should consider redesigning the training programs that are lengthy into distinct segments which are achievable in a short period of time. The program should be well-defined so that students may enter and exit at various times during the year in order to avail themselves of employment opportunities. The advantage to the student is that it allows him/her to acquire the assets needed to maintain family responsibilities and save for future educational expenses. Another aspect of this form of curriculum is that it leads the students in short steps, to the ultimate long term goal. The educator may find that this style of program affords greater opportunity and ease for upgrading of the curriculum.

The Health Occupations Educator has one more opportunity to assist the student in his/her occupational goal. Students often lack information concerning job openings, particularly in fields which are related to their area of training, therefore, all known job opportunities should be posted along with all sources of such information. In Albany, for example, the latest Job Bank listings are shown each morning on Cable TV, AET, Channel 9.

In conclusion, it may be stated that a pool of aspiring, motiviated but under-educated adults are seeking employment in the Health Occupations. Health Educators can assist those that are intersted in over coming the barriers that stand in the way of their becoming fully trained workers. This may be done by giving them information relevant to vocational and educational training programs and giving an oportunity to participate in them.

You may maintain your standards of attendance and progress. You may capitalize on the adult learners' motivation and sense of responsibility. The end product of mature individuals cooperating in a mutually beneficial educational endeavor is a qualified Health Care worker and an enriched society.

ADULT BASIC EDUCATION 1979/80

9

STUDENT DEMOGRAPHIC COMPOSITE

MALE 41%
FEMALE 59%

EVENING 42%
DAY 58%

Grade Level at Entry

0-5 10% 5-9 51%
9-12 9%

English as a Second Language 30%

AGE - 16-44 86% 45-64 12% 65 plus 2%

American Indian 1% Asian or Pacific Islander 14%
Hispanic 34% Black 23% White 28%

Public Assistance 16%

Non-Public Assistance 84%

ADULT BASIC EDUCATION 1979/80

PROGRAM EVALUATION

	Goals	Annual Achievement	% of Goal Reached
Adult Total/Enrollment	90,000	94,574	105%
Enrollment by educational level			
Adults who read between grade level 0-4.9 or have limited English speaking	22,500	37,175	165%
Adults who read between grade level 5-12	67.500	57,399	85%
Enrollments by special population groupings			
Adults who are:			
Unemployed	30,000	28,464	95%
Institutionalized	12,700	8,890	70%
From Minority groups	75,600	68,094	90%
on Public Assistance	16,080	15,276	95%
Total Completers			
Adults who complete specific educational goal			
Adults who complete grade level 4.9 or attain competency in English	9,000	9,902	110%
Adults who complete grade level 9.0 or who complete The High School Equivalency	12,500	13,042	105%
Adults who complete or attain a new educational goal			
enter a higher educational or training program	4,500	3,422	77%
Adults who achieve an economic goal			
obtain a new job, or a better job	4,000	3,832	96%
no longer on public assistance	3,000	3,377	113%
Total instructional hours provided in all programs	5,000,000	5,384,636	108%

SEX EQUITY FUTURES FOR HEALTH OCCUPATIONS

May Ann Etu
Office of Occupational Education - Special Programs
New York State Education Department

The changes that have occurred in our society, in the work place, during the last quarter century have not affected women only, although the impact on them may have been greater thus far than it has been on men. The lives of both men and women have been greatly altered and the impact of these changes on the nation's economy has been great. Changes in the traditional division of work in the market place have been from manual jobs to more mechanized and/or white collar jobs. In the home, the change from time consuming home production tasks to time saving appliances and food products prepared outside the home, has created a new way of life for many men and women. As women reenter or remain in the work force and move into traditionally male jobs, men have been given the sociological and psychological freedom to move into jobs that have been considered "women only" jobs.

These changes have no guarantee that people can get the jobs they want. While people are told that they can apply for and get almost any job for which they qualify, subtle discrimination still influences and affects the careers of all but a few women and men. Althrough sexism is losing its all encompassing grip on the employment scene, its pervasiveness is still a source of personal frustration and a waste of human energy and brain power.

Health Occupations is experiencing the opposite of the majority of vocational education programs. The opening of other occupational areas has seen more women making non-traditional choices. This swing has provided gaps and opportunities for males to become involved in greater numbers in a variety of human and caring occupations which society had to this point seen as an occupation for females.

In a newsletter from the United States Labor Department, The Growth Jobs for the 80's and 90's, the following Health Occupations were listed: Licensed Practical Nurse, Dental Assistant, Health Service Administrator.

Another chart, "The Road Ahead," listed the following jobs with great potential for 1978-1990:

Occupational Therapists	100.0%
Speech Pathologists	87.0%
Dental Hygienist	85.0%
Homemaker Home Health Aide	70.0%
LPN	62.2%
Health Administrator	57.1%
Respiratory Therapists	55.0%
Aids, Orderly, etc.	52.0%
Dental Assistant	50.0%
Physical Therapists	50.0%
RN	49.0%
Dental Lab	49.0%

The future employment opportunities in the Health occupations area look very bright. I would lke to share with you data from the Health Occupations Education Programs in New York State and trends in non-traditional enrollment.

Health Occupation Education Enrollment Data

Title	Year	Total	M	F	%Male
Dental Assisting	78	899	18	881	2.0
	81	977	130	847	13.3
Medical Assisting	78	890	32	858	3.6
	81	727	71	656	9.7
Nursing	78	48	1	47	2.0
	81	4	3	1	75.0
LPN	78	3191	46	3145	1.4
	81	2599	148	2451	5.69
Assisting	78	2215	90	2125	4.1
	81	3035	325	2710	10.0
Community Health or HHA	78	11	0	11	0
	81	332	38	294	11.4

Health Occupations, as evidenced by the changes I just read to you, show a trend to more male involvement. As females select other occupations, health is benefiting from the inflow of males into Health Occupations.

I would like to share with you some findings, implications, and recommendations made by traditional and non-traditional students in New York State. The longitudinal research study was entitled, Sex Equity in Post-Secondary Occupational Education, conducted by the Two Year College Development Center, Albany.

This study has been designed to determine the extent to which two-year colleges in New York State have been able to address the priorities related to sex equity, the impact of these efforts on students, and employed graduates, especially those who have selected a non-traditional career path, and the implication of these outcomes for institutional policies, planning and programming. For research purposes, sex equity is defined as, an equal opportunity for females and males to choose and gain entry to vocational programs and careers based not on traditional work patterns and social mores; but on individual interest, ability, need, realistic awareness of, and accurate information about the world of work.

I will not discuss the implications, findings, or recommendations but merely to mention them to you to keep in mind as you discuss futuring for Health Occupations.

Graduate Follow-Up

- Graduates in non-traditional occupations identify salaries and potential advancements as main concerns. For females in traditionally male fields, this concern is positive and rewarding--they describe their work as challenging, as a learning situation, the potential for advancement as real and immediate, and salary rewards as excellent. In contrast, males in traditionally female fields are finding the amount of responsibilities attached to salary rewards as incongruent. The males indicate their displeasure with low-paying levels, and in some cases, treatment of employees within these occupational areas. For example, male nurses do not perceive that they are being treated any differently than the female nurse. The comments are that treatment of nurses in general leaves much to be desired for a pleasant, rewarding situation. The potential outcomes of these cross-overs may ultimately be an improvement in these traditionally female areas.

- Although the health field was perceived as providing information about future responsibilities, tasks, and potential alternatives, other fields were not as well rated in providing this kind of basic information. Resume writing, placement seminars, and orientation efforts were rated positively where available, and their need and useability were underscored.

- Those choosing to enter non-traditional fields seem to acquire an attitude that they are able to cope, and will cope, to the best of their ability. A spin-off of these instances is an increase in general coping skills. By training and working in a field nontraditional to their sex, these skills are sharpened. Whether or not the career is continued, the acquiring of these skills helps guarantee a more satisfying lifestyle, especially to the female.

- Results of the follow-up survey show little or no difference among males, females, or their traditionality or occupational areas. Some differences exist: females generally express greater satisfaction with their position and fringe benefits than males; males are more satisfied with safety conditions; traditional females are significantly more dissatisfied than others regarding work schedules.

- Both traditional and nontraditional workers found their expectations satisfied in terms of current responsibilities and duties. The potential for advancement was seen as more positive by those in nontraditional fields than by those in traditional areas.

- In general, health fields tend to offer more information relative to the field and making career choices. The technologies were also assessed as providing some direction through seminars in some cases, courses to pursue potential opportunities and application of their training. Other fields tended to offer information about salaries and potential places of employment, and in some cases personnel from the industries as a resource person in classes; but essentially, no emphasis was given to what can be done with a degree and alternatives that might be followed in later years.

- What previously might have been viewed as a barrier or problem, is now seen as an incidence which is addressed and closure reached. In general, interview outcomes suggest that workers in the traditional or non-traditional fields are not meeting unlike situations, and that the sources of negative feelings rest with the time-old problems of salary, schedule and colleagues.

- Males in nontraditional programs also indicated some disadvantages. They are greatly concerned with the level of pay in their chosen field. They are not concerned with the treatment that they will receive, and find that being in a nontraditional area is apt to be an advantage in terms of promotion within that field. The greater concerns on the part of females in nontraditional programs focus on their long term relationship, treatment, and association, not so much with peers, but rather with those in authority--especially if they encounter one whose attitude toward them may be prohibitive to completing tasks. Both males and females in traditional programs tend to be more concerned than others with obtaining a job in an area where they will be content and happy.

Employer Survey Data

- Most employers tend to rate the nontraditional worker as equal to workers in traditional fields. An exception is related to motivational factors wherein non-traditional workers tend to be rated as better than traditional workers. This suggests recognition by many individuals entering those fields that they must overcome attitudes and mores, such as, "it is women's work" or "men's work" by overcompensation in areas under their personal control.

Career Preparation

- The major factor in promoting hiring in occupations nontraditional to sex is competent performance and demonstration of skills and knowledge. There is little doubt that nontraditional workers may be met with an attitude of "show me you can do it." The data indicates that employers see qualitications as the major criterion in hiring and satisfactory performance as the major criterion in continuance and promotion. The feedback from nontraditional workers indicates that attitudes become more positive as they demonstrate their ability to perform. This suggests that occupational programs continue to emphasize skills at a high level and at the same time, admit those who demonstrate the potential of success regardless of previous experiences or opportunities for experiences. For example, if a male applicant to nursing has not had the opportunity to function in a related role because of his gender, but demonstrates potential on other criteria, his admittance should be encouraged. The bottom line for acceptance in a non-traditional jobs is performance that is comparable or better than others in the field.

- Compared to the skill and background knowledge, data indicates a general lack in preparation regarding interpersonal relationship techniques. One of the areas which was identified most frequently by those employed in fields both traditional and nontraditional, was related to the need for more guidance and actual instruction in working with people. Therefore, it is strongly recommended that a required portion of career programs be in terms of those skills.

  In the case of careers which are more service oriented, it is suggested that a one-credit hour course be offered which will help the graduate interact with the public and, at the same time attend to the skills necessary in getting along with persons in authority and in working with colleagues.

- One of the weaker portions of their training for various careers has been shown by the data to be that of developing a realistic view or perspective of actual on-the-job working situations. The majority indicated the need for more hands-on, intern and work study experiences to help build an appropriate viewpoint.

- The data suggests that one of the benefits of pursuing a career contrary to its traditionalility is the acquisition and development of coping skills. To aid this acquisition it is suggeted that the college provide opportunity for their development, probably associated with the modules/one credit course, or in small group counseling situations offered as part of the effort to develop job search skills and greater understanding of the potential of their degrees. In these efforts the kinds of coping skills necessary could be pointed out, discussed and the students helped with resources that could be utilized once on the job. These kind of skills are not specific to occupations, but would help the individual live a more rewarding life in general, as applicability of coping to living is comprehensive.

- The existence of role models for non-traditional workers continues to be an important consideration. Therefore, it is recommended that colleges continue to explore as many avenues as possible to provide their students with opportunities to become aware of non-traditional role models. This, again, may be implemented in concert with the previous recommendations for job search and coping skills.

Special Needs Support

- Special needs groups, such as handicapped, displaced homemakers, re-entry adults, single parents, retired and pre-retired persons, are found to need the support and encouragement of peers who find themselves facing like problems. Therefore, it is strongly recommended that schools as a whole, and specific career areas in particular seek ways to encourage and facilitate the functioning of peer support groups for these special need groups. The time and expense for such peer groups would be minimal, while the pay-off for the demonstration of concern would be immeasurable to there special students.

- The longitudinal data suggests that the ambience of the two-year colleges in New York State is generally one in which there is an attempt to provide equity of opportunity in training students generally--including the question of traditionaility of occupations. This is not to say that instances or individuals cannot be isolated who are guilty of promoting the limiting traditional views and stereotype attitudes. However, employed graduates, from their current perspective, generally rate their college as having a positive climate. Suggestions offered are viewed as part of the effort toward improving and increasing the extent and the depth of this positiveness.

  Recent efforts to promote sex-equity and emphasis through legislation and funding are beginning to make programs as open and effective as possible for the greatest range of potential population. These developments may be linked as much to enrollments as to the impact of equity related programs and efforts. The final results will emerge as the emphases, financial support, and guidelines are reduced. The true test will be the extent to which the attitude continues to grow more positive and the extent to which efforts are made to encourage non-traditional students to follow occupations which are more suited to their ability and needs, and allow a choice of the range of income to be pursued.

- In contrast to a few years ago, there is an abundance of materials and resources on the market that may be referenced for help in addressing equity related issues. The problem is to identify those which are most worthwhile and appropriate for occupational education students, and those warranting attention and time devoted to it. Thus, a need exists for a critique of materials to identify the most critical and the most usuable for students of a particular level.

Equity is best approached as a total concept which embraces the equity for special need groups as related to gender, physical conditions, mental conditions, ethnic background, economic background, educational level and family and social situations. One can not be approached without consideration of the others. Change is all around us. To many people, change is a threatening word, to others a challenge. Change not only presents problems, but opportunities as well. It all depends on perspectives. The potential of health occupations carries great opportunities for creating training for both males and females in caring careers. For the future, you have started to make the needed changes, keep up the forward moving.

HANDICAPPED STUDENTS: IS THERE A PLACE FOR THEM IN THE WORK WORLD OF THE FUTURE?

Florence Hoffman
Syracuse School Disctrict

Today it is estimated that one in every ten people in the United States may be considered to be handicapped. While this figure is based on the entire population, young and old, there is little reason to suspect that the ratio is different for the high school age population. In addition, since, as a result of increasing medical knowledge, the newborn survival rate continues to increase in this country, we may expect that the ratio of handicapped persons in the general population may even increase. This is not to say that all of these people need special education or modified educational programs, but it does show that this problem is not one to be considered lightly. This Statewide Health Occupations Review Committee, in considering this group in its plans for the future, shows great foresight and a long-range view of the problems of educating students of all levels of ability for the jobs of the future.

For purposes of this report, we define the handicapped student as one who is:

1. Mentally retarded--mildly, moderately or profoundly
2. Physically handicapped--
    - orthopedically impaired
    - visually impaired or blind
    - hearing impaired or deaf
    - speech impaired
    - neurologically impaired (Cerebral Palsy, Brain Damaged)
    - learning disabled
3. Emotionally disturbed

Many students are multiple handicapped and are included in more than one category.

In a typical city school district with a total enrollment of approximately 21,000, about 2,400 might be labled as handicapped in one way or another. Not all of these are candidates for Occupational Education. Some are emotionally disturbed to such a degree that it is inadvisable for them to try the world of work at this time. Some have multiple handicaps and are not capable of wage-earning work.

Approximately 350 of these labled students will be in Occupational Education programs at any one time. Some of these programs are ten week exploratory programs and a reasonable percentage of these students may take two or more of these classes in one school year. Some of these labled students will be mainstreamed. A sampling of the programs available to them may incluide Health Assisting, Nurse Aide, Food Service, Auto Mechanics, Service Station attendant, House Wiring, Television Repair, and other similar programs.

It is to our advantage to train the handicapped student, both from an economic and a moral viewpoint. Economically, we can take these workers off the Social Assistance rolls and make them contributing, producing, taxpaying members of society. From a moral point of view, we have an obligation to help all students reach their highest potential. That is what education is all about. Add to this our legal obligation under P.L. 94-142, otherwise known as The Education of All Handicapped Children Act, and you have the whole picture.

Handicapped students, once they are fitted to meaningful jobs that fit their capabilities, can be relied on to have a very good attendance record, get along well with others, and not become discouraged with those repetitive jobs that usually have such a high employee turnover. They are steady, reliable workers. This becomes important when we realize that we will have a smaller pool of workers from which to draw as we reach the end of this century. The baby boom generation will be nearing retirement age, and their jobs will have to be filled by available manpower of all capabilities.

Long term care facilities are becoming prohibitively expensive even today, and less costly Home Care, now on the increase, will continue to expand as a more sensible and affordable alternative. Thus, Home Companion Care and other innovative methodologies in the Health Occupations field may open up unprecedented opportunities for employment of handicapped people in the relatively near future.

Not everyone can be placed in a job, nor can everyone be placed in a job of his or her preference. There must be some compromise between the rights of individuals and the rights of employers to run efficient and profitable enterprises. It is society's obligation to show employers that in many cases it is to their advantage to provide job opportunities for handicapped individuals. Of course, there are also legal obligations imposed upon employers under Sections 503 and 504 of the Rehabilitation Act of 1973, to employ people with disabilities, not to discriminate against them, and in many cases to take affirmative action to seek them out for employment and promotional opportunities.

Handicapped students must often be trained for specific jobs. Often they encounter difficulties in transferring general concepts from one area to another.

Physically disabled students are a case in point.

Example: A mobility impaired student, confined to a wheelchair, is trained to operate a particualr machine in an Occupation class. The school machine is operated by hand levers. Upon completing the course, the student is sent to a factory, only to find that the machine used in that location, while performing the same function, is manufactured by a different company, and must be operated partially through the use of foot levers. In order for the student to be able to apply the knowledge learned in the classroom, the machine must be modified, the student must be retrained, or a combination of both will have to take place.

This also applies to mental retardation.

Example: A mentally retarded student is taught in class to work in a hospital kitchen, to set up trays and to portion out food. In the actual work setting at a local hospital, the student finds that the operation is partially automated. This student must then be completely or partially retrained in order to perform the type of job actually available at the hospital.

The workers have actually been given pre-vocational training. That may be necessary, but let us not make the mistake of calling it vocatioinal training. Will employers take the time and spend the money necessary to train these students themselves? Given the profit-oriented society in which we live, is it feasible to expect this? Even under the "reasonable accommodation" requirements of the Rehabilitation Act, there is an ongoing dispute as to whether employers are required to do so.

I believe that handicapped students need to be trained for specific tasks and that this training cannot take place enomically or realistically in the classroom alone. It must be done on site. There is a limit to the classroom learning capacity of mentally retarded students. They must be out in the world, mixing with other people, using other workers as role models, using public transportation, for their training to be practical and have meaning.

In this context, I am not advocating "on-the-job training" by industry, but I do believe that teachers of Occupational Education should make the workplace their classrooms. Students will still be part of an educational system under the direct supervision of tachers with experitise in the particular discipline; but they will not be in structured classrooms. The concurrent learning that takes place is more practical, more meaningful and more effective, and a higher percentage of that learning is retained.

We may also approach the question of how to use these special workers, not be merely assessing their abilities, but by determining what the needs of the particular jobs are. Task analysis has been used to some extent during the past years; it is now being approached more analytically. At Syracuse University a "Comprehensive Assessment Center" is being organized. This unit will break down entry level jobs to their smallest components. Besides being able to match students more intelligently to jobs, they will be able to provide the basis for teachers to organize effective lesson plans geared to the abilities of students. Another objective of this Center will be to teach others how to perform task analysis, and how to use it as an effective teaching tool. This may ultimately elminate some of the try/fail methods with which so many handicapped students become discouraged.

If we are to realize the potential of each of these special people, we must be aware of several factors. We must ensure that :

1. We are careful not to assess capabilities on the basis of our previous experiences with students with the same or similar handicaps, or on the basis of our own biases;
2. Handicaps are assessed realistically and correctly;
3. Handicapped workers are trained to their optimum levels;
4. They are given the support services they need, such as transportaion and physical access to and within buildings;
5. We do not dictate the optimum level of handicapped workers, but allow them the privilege of trying each succeeding level as mutually agreed;
6. Handicapped workers are matched with jobs they can do productively, and with an optimum level of job satisfaction;
7. We do not ignore the employer and the profit motive which realistically is the directing force of business and industry in this country.

While we may consider ourselves student oriented, striving to match them with jobs they desire, employers also deserve input and incentives to hire handicapped persons. If we ignore employers and fail to take into consideration their fears and concerns, we may very well defeat our purpose. If there is no market for our workers, we will only have succeeded in training them for unemployment.

In order to reach our goal of fitting each student into the job best suited to his or her capabilities, we must allow for:

1. Early evaluation and ongoing assessment of capabilities;
2. Early and continued vocational involvement;
3. Ongoing Life Skills programs under which I would include development of positive self-image and work ethic;

4. Continuous support and involvement of the family of the special student;
5. Recognition of the legitimate concerns of the employers;
6. More individualized instruction for the mainstreamed student;
7. A willingness to try non-traditional and unconventional methods of instruction.

I applaud all of this committee for understanding the value of handicapped students not only as persons, but as members of the work force of the future. These students show more courage in a day than many of us realize. They deserve a chance to be in the mainstream of life.

A caring society must find a way to train these special students, not out of a sense of pity for what they cannot do, but because it realizes the worth of what they can do.

Conclusion

Approximately one in ten youngsters of high school age in our society can be considered handicapped in one of several ways. Society must gear itself to training these young people for meaningful employment, for moral and economic, as well as legal, reasons, through vocational training programs made available to them through our various school systems. In this process we must distinguish between vocational and pre-vocational programs. While the needs of these young people must be met, society at the same time will find an increasing need for their trained services, as the available pool of workers for many positions diminishes and the cost of some of our present methods increases. Training must be specific and should include formal classroom training, as well as training at specific job sites, with consideration of the job site as an extended classroom. At the same time, there are a number of factors of which we must be aware, both in order to allow these people with special needs to realize their full potential through training, and in order to be able to determine the full capabilities of all such students. Recognition of these factors will ensure that job placement will be properly made communsurate with the capabilities of the students.

SPECIAL POPULATIONS - THE DISADVANTAGED

George R. Quarles
Office of Occupational and Career Education
New York City Board of Education

The Disadvantaged

In America, unlike many other countries, the educational system attempts to serve all of its citizens. Groups such as this statewide Health Occupations Committee which will be examining curricula changes must consider the special needs of a wide variety of students. This is no easy task, however the committee is showing their awareness and concern for addressing this issue by including presentations on special population groups. The focus of this paper is on the characteristics of the disadvantaged students with some specific implications for curriculum design.

Much has been written about the "disadvantaged" population. The Vocational Educational Amendments of 1968 called for an important change of emphasis in American Education. It specfied that the educational experience should be devoid of the artificial barreier between academic and vocational curricula and be flexible enough for each individual.

This legislation provided the opportunity for States and local educators to tailor their programs to the needs of people.

The regulations for the 1968 amendments stated that the term disadvantaged "includes persons whose needs for such programs and services result from poverty, neglect, delinquency or cultural or linguisitc isolation from the community at large, but does not include handicapped persons. . . unless such persons also suffer from the handicaps described in this paragraph."

There have been some refinements to this definition such as separating the academicaly disadvantaged and the economically disadvantaged into different categories. Also the linguistically disadvantaged are now separated into an entirely new category called Persons with English Proficiency. For the purpose of this paper the 1969 definition will be sufficient.

Who Are the Disadvantaged?

Most of the population today considered disadvantaged are from the minority groups: Blacks, Hispanics, Indians, Cuban/Haitian Refugees, also the Appalacian Whites and the migrant laborers. The disadvantaged are concentrated in larger urban areas or the rural depressed areas. They are characterized as follows:

Characteristics

- have low family income
- parents have low educational attainment, few books are available in the home and reading is not encouraged
- have difficulty succeeding in the conventional school setting, frequently are disillusioned and frustrated by the school system and are considered by teachers as "slow learners"
- have low-level reading ability, limited formal vocabulary, poor speech construction and diction, limited math skills
- considered misfits by some teachers--may be hostile or passive and apathetic
- many never complete high school

What has been cited above is what the literature tells us. How then does one explain this contrast? Same low income family--sister completed Aviation High School in New York City with better than average achievement, graduates, gets a job with Pan American Airlines, current salary $18,000 a year three years after graduation. Her brother, under achiever in high school, disruptive in classroom, frequently truant, dropped out. The sister was economically disadvantaged. The brother could be classified as academically and economically disadvantaged--same home, same environment, what went wrong? Who is at fault?

Our curriculum has to be flexible enough to meet the needs of all people. One thing I can assure you--the disadvantaged will be with us in the future. Any effort in curricula redesign must consider the special needs of the disadvantaged.

Special Needs of the Disadvantaged

Disadvantaged students are frequently more expensive to serve because the economic disadvantagment may be accompanied by academic disadvantagment. With these tandem conditions pressing upon the student, they often require additional resources in the form of more intensive counseling and assessment administered with understanding and compassion for their situation. They need reinforcement and upgrading of their basic skills through developmental courses. Other special support services include referrals to social service agencies; work study jobs and health-related services.

Since many of these students are unable to succeed in regular vocational courses without supportive services, they are not actively sought for admission into regular vocational programs. Unfortunately, these students frequently are left out and students requiring the least amount of support are selected. Much of the difficulty in serving the disadvantaged resides not so much in the deliverers of vocational education as it does in the educational system of which vocational education is a part. The educational philosophy; the grading system; the granting of academic credit; state diploma requirements; disciplinary practices; and many other pedagogical practices and customs, condition the quantity and quality of support services available for disadvantaged students. Also, many schools still have a tendency to divide their educational offerings into separate tracks, and this works against the disadvantaged students who, without counseling, select courses that don't prepare them for employment of post-secondary education. One of the major principles of vocational education is that "it should be available for all who need it and want it." Certainly the disadvantaged "need it" and recent indications signal us that they "want it." Thus, the challenge to the statewide Health Occupational Review Committee is, how can the curriculum of the future be designed to best serve all students including the students with special needs. The curriculum should be designed not only with concern for the special poulations but also with the concerns of the health profession. The curriculum must be developed around the tasks that one performs to accomplish the job. If these tasks demand a strong background in the cognitive domain then students should be selected who show promise in this area.

Educators should adopt the career development concepts such as awareness, exploration, assessment, and career planning to surface the innate talents that many disadvantaged students possess. Remember it is not a lack of basic intelligence that prevents these students from achieving. The many characteristics described earlier are the major causes for underachievement. Without early intervention, including such programs as the New York City GATES program, many capable students will never reach their full potential.

In designing future health careers curriculum and it's adaptability to the needs of the disadvantaged, one might want to consider the following:

1. Designing a special section of the curriculum that deals with methods of teaching the disadvantaged. Seek out and analyze information on alternatives to conventional educational practices for imparting academic and job skills to the disadvantaged. Determine what practices have been successful and describe the process.

2. Utilize the natural motivation of students' interest in health careers to

support basic skills development in such areas as reading, communicating and mathematics. Correlate the health careers curriculum with the academic curriculum. Suggest procedures for joint lesson planning between the vocational and the academic teachers.

3. Staff development sessions designed to create an awareness of the special characteristics and needs of the disadvantaged. Some teachers feel that "those students can't learn." This attitude needs to be altered because if the teacher feels that the student can't learn then he/she won't learn. Some sessions should be devoted to special techniques for teaching the disadvantaged.
4. Work and clinical experiences give students an opportunity to apply those skills learned in the classrooms and laboratories to "real" situations. This application reinforces and strengthens the need for learning and brings reality to the classroom discussions. It allows students to perform on equipment that probably would not be available in the classroom, and develops human relations skills because of the personal contacts that occur during the work or clinical experience.
5. Infuse employability skills into the curriculum. This would include such activities as preparation of a personal profile (resume), mock job interviews, exposure to personal development laboratories, proper dress, attitude, and the employee's responsibility to the employer--getting to work on time, loyalty and trust, responsibility--all of these activities can be considered employability skills.
6. Student counseling, assessment and career planning. Assessment may involve some testing to determine student's interests, needs and ability. Counseling both career and personal will assist the student with problems as well as planning the career goals. Referring students to support services such as health, and financial aid or part-time work may also be necessary.
7. Self-paced materials for independent study and other special instructional devices such as computer assisted instruction, video tapes, filmstrips, and speakers, will strengthen the curriculum.
8. Procedures for creating public awareness and support for health careers programs. The disadvantaged, as all students, want to be recognized and appreciated. Activities such as health career fairs have proven to be successful in creating public awareness. Students in their white uniforms taking blood pressure and performing other physical examination

procedures are very impressive. The students feel proud of their unique abilities and the public response is positive and consequently encouraging.

This list reflects just a few of the strategies that I feel should be considered in designing the health careers curriculum for the future. The task is enormous but the end product can effectively change the lives of may who might otherwise never move into the mainstream of our American society. None of us can afford to let this happen. Your efforts are of prime importance to the future of education and the nation--I congratulate you!

CIVIL RIGHTS ISSUES: NOW AND THE FUTURE

Carol Jabonaski
Occupational Education Civil Rights Coordinating Unit
New York State Education Department

As you, the members of the Health Occupations Educaton Review Committee, examine the curriculum of health-related training programs for future implications, you undoubtedly have considered a variety of important factors: new technology, expanding professional roles, changing populations characteristics, and the economics of providing health care.

Yet after all these and similar factors have been studied, there remains the essential ingredient of health care delivery--the human resource called health care workers. Although training workers is one of the main concerns of our occupational education system, it is, however, not only the context of education that should be considered. The needs and rights of students who will become part of the future health care workforce must be integral to the entire futuring process.

Workers in the many occupations in the health care field tend to be clustered by sex and by minority. Women, for example, are much more heavily represented in the nursing and allied health assisting fields than are men, while physicians and dentists are much more likely to be male. Lower level health care workers, especially in the major metropolitan areas, tend to be minorities, while the better paying and more highly trained technologists and physicians are often white.

This disparity is evident also when student populations in Health Occupations Education courses in New York State are examined. Dental assisting students consist of 98% female, LPN students--98% female, medical assisting--96% female, and so on. When all Health Occupations Education enrollments are considered for the past few years, figures have varied between 89% and 93% female, and, I might add, with no improvement trends noted.

The point, of course, is that there has been an historic pattern of distribution in training programs and in occupations in the health care field by sex, race, color, and national origin. Statistics on persons with handicapping conditions in this area are not readily available--but I suspect the record in employment of handicapped people in health care occupations is not particularly good either.

The State Education Department is committed to a policy of equal access of students to all occupational education and practical arts programs. The Occupational Education Civil Rights Coordinating Unit is responsible for ensuring that this commitment is met by educational agencies in New York State, and in ensuring that those agencies comply with the appropriate federal civil rights authorities.

Beginning in 1964, with that year's federal Civil Rights Act, the U.S. Congress had passed a series of important pieces of legislation which collectively prohibit discrimination and denial of services to persons on the basis of race, color, national origin, sex, handicap and age. Between 1971 and 1977 a series of legal actions in the Federal District Court in Washington, D.C. were taken by the NAACP and other civil rights advocacy groups, which alleged that the U.S. Department of Health, Education and Welfare (now the Department of Education) failed to enforce existing federal civil rights legislation especially in vocational education. As a result of these actions, the court issued a Consent Decree in which the U.S. Office for Civil Rigfhts was required to establish Guidelines for Eliminating Discrimination and Denial of Services on the Basis of Race, Color, National Origin, Sex, and Handicap in vocational education programs. The Guidelines, published in final form on March 21, 1979, required that the State Education Department develop and implement a compliance program to prevent, identify and remedy such discrimination and denial of services operated by recipients of federal financial assistance.

Our State's response to this requirement was essentially three-fold. The State Education Department established our Unit within the Office of Occupational and Continuing Education. The Department produced a document called Standards Governing Civil Rights in Vocational Education Programs, which compiles the federal civil rights authorities and provides guidance to local education agencies about their civil rights responsibilities. Based on these Standards, the Office of Occupational Education Civil Rights Coordinating Unit developed a compliance review process and technical assistance program which is being currently conducted.

The compliance review process consists of a desk audit of 20% of all educational agencies within New York State each year. From these schools, 25% are selected for an on-site visit by a team of 2 to 4 staff members. The team spends anywhere from 3 days to 2 weeks at an agency, interviewing faculty, administrators, and students, observing the program and determining physical accessibility. The result of the visit is a letter of findings which cites the agency for any areas of noncompliance with the Standards which have been found, and directs the chief school administrator to submit and implement an approved voluntary compliance plan to remedy all violations. The school is then monitored for on-going compliance.

Our Unit also has the capability of providing technical assistance to agencies prior to the review process and during development of the compliance plan.

Domographic studies continue to indicate a decrease in general secondary student enrollment for the future. That trend does not reflect some important changes which will affect education. In the future, one out of five students will be of a racial minority, more women will be seeking to enter the workforce, there will be an increase in bilingual students and students with handicapping conditions. There also will be many more adults enrolling in our programs than there are now.

I would like to touch on a few significant issues which should be considered as you make recommendations for the future of Health Occupations Education. Students must know about, gain entry into, and for those with a handicap have physical access into Health Occupations Educations programs. Sex-stereotyped recruitment and admissions materials still generally exist, and recruitment and guidance practices tend to promote continuation of sex-stereotyped roles. The concept of nontraditional career opportunities, together with use of appropriate resources and techniques are essential. In the same way, schools must revise their recuitment, promotion and guidance activities to assure that minorities, handicapped students and persons with limited Enlgish-speaking ability are equitably distributed within all categories of Health Occupations Education.

Be especially careful of recommendations which relate to admissions criteria or tests for entry into programs. Such criteria or tests may not disproportionately exclude applicants on the basis of race, color, national origin, sex, or handicap unless the school can demonstrate that the criteria or test has been validated as essential for participation in that program. Our compliance teams have found that, for example, handicapped students may be denied entry on the basis of general, vague and unnecessary requirements. The use of core courses which assess student competancies and modify instruction to upgrade performance might be one way to ensure that disadvantaged students gain entry to nontraditional programs.

In a similar way, recruitment with an introductory, preliminary or exploratory course as a prerequisite which is not generally available to all students without regard to sex, race, color, or national origin should be avoided. A home economics course, for example, which is restricted to female enrollments only could not be used as a requirement for entry into a nursing program, unless provision is made to provide that course to males who wish to enter the program and had previously been denied.

Some other considerations:

- Physical access for mobility-impaired students to programs means not only being able to get into the building through a classroom door, but also being able to use the equipment in the laboratory. A wheel-chair bound person should not be eliminated from occupational opportunities at bench-centered jobs like a medical lab technician or dental mechanics worker, for example.
- Work experience opportunities should be available on gender-neutral terms and without regard to race or color, or whether the student can communicate in a language other than English, or handicap.
- Awards of financial assistance cannot be discriminatory, and neither can pinning ceremonies or other forms of recognition.

The futuring committee should strongly encourage business and industry to promote fair and equitable employment of program graduates, and take positive steps to (1) employ persons in nontraditional jobs, (2) ensure that minorities are provided the same opportunities for training and placement in the workforce, and (3) modify the workplace and equipment so that qualified handicapped persons can be employed.

Finally, the area of employment of faculty and administrators must not be overlooked. Civil rights legislation clearly requires that any employment practices of a school which discriminates on the basis of sex or handicap is prohibited, and that employment practices which tend to result in segregation or other discrimination on the basis of race, color, or national origin are also unlawful. This means that as recommendations are made about staffing of new or reorganized curricula, they should recognize that recruitment and treatment of such staff should be nondiscriminatory as well. Students deserve positive role models which reenforce the concept of equal opportunity.

As you take into consideration the scope of recommendations you make, be mindful of the context into which you place them. Equity in Health Occupations Education programs can be seen simply as using the obligatory statements about compliance with civil rights authorities, or in a more comprehensive way as a set of values which ought to be an integral part of education.

Whatever your recommendations as to curriculum structure and content, you also should be consistent with the need to overcome institutionalized discrimination whether it is sexism, racism, or "handicappism." Such consideration of the needs of these so-called "protected populations" should soar above the minimums required by law.

Regardless of the current trend to federal, state, and municipal budget cutting, the issues of civil rights will not go away. The concern for equal access to education was started by advocacy groups, and they will not fade as the federal mandate is undermined by lack of federal dollars or periodic changes in the implementation of regulations.

The underlying federal legislation, passed by the Congress, is still the law of the land. Strict enforcement of these laws was the result of a Federal District Court order, not a presidential directive. Even as an apparent weakening of spirit at the federal level begins, advocacy groups are renewing their vigor at the State level. Mostly, it is important for you to recognize that the future of occupational education lies not only in accessibility to training and education, but in equal treatment in school and in the work environment.

TEACHER QUALIFICATION, EDUCATION AND CERTIFICATION
A UNION VIEW

Richard C. Howard
New York Educators Association

NYEA has numerous concerns and suggestions for changes in the program outlined by Dr. Gazetta for establishing teaching as a profession. NYEA supports the Regents for finally attempting to deal with long-overdue recognition of teaching as a profession, but is anxious about just how that recognition will evolve.

NYEA strongly supports both the establishment of teaching as a recognized profession and the development of entry-level standards into the profession which will result in an upgrading of the quality of those who become professional practitioners.

Before sharing our reactions to the preliminary report on teaching as a profession, we are compelled to register adamant opposition to any form of registration or re-registration of current in-service practitioners.

In addition, we are unequivocally opposed to the use of tests as a method to make any judgements regarding the competence of in-service teachers.

We believe that the Board of Regents has a responsibility to develop regulations which guarantee that the students of New York State are being taught by qualified teachers, but it is the responsibility of local school districts to supervise and evaluate the actual peformance of those teachers.

Several states have implemented systems of renewable licensure; some of those states have gained considerable experience with such systems. In no instance has such a program resulted in either measurable increases of competence of teachers or more efficient performance.

There is no body of data which reveals that standardized measurements of any sort can adequately measure one's teaching ability or skills. Even if it is true that certain skills can be tested, how can a test measure how or whether those skills are applied? The quality of the practice of teaching is not merely a function of teacher preparation and generic testable knowledge but also is very much dependent upon such things as skills in human interaction, applicability of programs to student needs, financial support of programs, availability of inservice training and administrative support.

As we turn to the issue of formally recognizing teaching as a profession and the procedures required to set the standards for practitioners, we will make no additional comment on any of the options or alternatives which would establish, or move toward re-registration of insevice teachers or use of standardized tests to measure existing teachers.

We cannot over-emphasize our opposition to both concepts. There are two elements in establishing professional governance of teaching. The establishment of a governance (standards) board and a preservice program leading to licensure. The following points outline our concerns about governing the profession of teaching:

1. The present occupation of teaching incorporates all of the elements common to other currently recognized professions in New York State except a professional standards board govening entrance to the profession and formal recognition under the law. Such recognition and establishment of a professional board are overdue.

2. The composition of the professional governance board is crucial. We agree that the Board should include teachers, representatives of teacher training institutions, school district administrators and the public. Each of these represents an important constituency of interest. NYEA strongly believes that:

   *The board must be comprised of a majority of practicing teachers.

   *The seats on the board should consist of ten practicing teachers, three representatives of teacher training institutions, one administrator and two members of the faculty, two school district administrators and two members from the public.

   The primary function of the board will have its greatest impact upon elementary and secondary teachers and representatives of those groups should comprise the overwhelming majority of the board.

   More than a few persons have already argued that a professional board governing teacher education and certification will become the captive of the state teacher representative organizations. NYEA believes that it would be self-defeating professionally if this were to occur. We believe that the teaching profession has the greatest of all stakes in the quality of education. We believe that teacher goals are directly in keeping with community ideals and that one important by-product of the existance of such a board will be the discovery on the part of the public that the vested interests of teachers are important but not exclusively self-serving.

Experience of the 14 states with governing boards indicates teachers are highly sophisticated about differentiating between their respective roles as public employee, member of a profession, member of an association, private citizen, and member of a state governance board.

The role of the two state teacher organizations legally representing teachers can be clearly defined. For example, we would offer the following suggestions. The state teacher organizations should be involved in the development of the selection process for board members as well as in the nomination of the teacher representatives. State association counsel and influence should not only be expected but solicited by the members of the board. And, of course, the legislative lobbying necessary to make any of this possible can be coordinated through these state organizations. What must be clear is that concern regarding the state teacher association role is at best merely tangentially related to the real purpose of professional governance. It should not be used as a scapegoat for further inaction.

3. NYEA believes that the governance board should be the Policy Recommending Panel for the profession with full stature within the profession. If it is to fulfill the role, the profession must have the major responsibility for selection of the Board.

   We believe that the selection of individual professional members of the board should be chosen by the Regents from a list of nominees developed by the professionals in each category.

   Such a system insures that the Board will have an accountable connection with the profession. It represents the "institutionalized voice in the management of (educational) affairs" inherent in the recognition of teaching as a profession.

4. A most important aspect of the professional governance board is the question of the scope of the Board's activity and the definition of that scope.

   A professional governance board must deal with standards rather than practices. By definition, these words are distinctly different. This distinction must be made clear.

   Practices are those events which customarily take place within the classroom or other teaching-learning environments. The determination of such practices have traditionally been, in a general sense, the perogative of school boards and in a more specific sense, the perogative of classroom teachers. Practices include philosophy, goals, curriculum, objectives, and technique. Decisions in their regard have been until now, and should remain the domain of locally autonomous school boards and academically free classroom teachers. Any direction by a statewide board affecting these areas would go beyond the intended scope of a professional standards board. NYEA strongly supports the concept that standards are the responsibility of the professional governance board.

5. NYEA believes that in-service education is an extremely important factor in helping teachers keep abreast of changes in theory and skills applicable to the practice of teaching. We believe the state should mandate that local school districts provide opportunities for in-service education of teachers, based on local needs, and provide adequate funding for such programs. We believe that in-service education needs and design are a function of the pracice of teaching. Practices are local matters of local concern therefore effective in-service education programs must be developed and implemented on the local level.

   Educators agree that such offerings must be teacher designed, based on expressed teacher needs and where appropriate delivered by teachers. A requirement that teachers complete specified in-service programs would unduly restrict school districts in their effort to provide in-service training based on local needs.

6. Present provisions under Part 83 of the Commissioner's Regulations and Section 3020-a of the Education Law should be continued as the procedures for dealing with matters of professional discipline. However, authorization for the review of questions of eligilibility for certification and revocation or suspension of licenses should rest with a professional practices board rather than the existing Teacher Education Certification and Practices Board.

   Definition of competent service is a function of local character and needs. A teacher found to render incompetent service in one school district may well be found to render exemplary service in another of different character and needs. It is essential that identification of imcompetence be a local function.

NYEA strongly opposes any alternations of the provisions of section 3020-a of the Education Law that would result in

*Performance ratings for teachers as under provisions of Section 140 of the Civil Service Law.

*The establishment of provisions allowing suspension of teachers without pay after finding of probable cause against them.

*3020-a hearings before a single hearing officer.

7. NYEA believes administrators and supervisors should be licensed and disciplined as professional practitioners governed by a statutorily defined sub-board of the professional governance board. Those licensed to evaluate the performance of practitioners must be subject to the standards set by the profession for those whom they evaluate.

We support an entry-to-the-profession process and suggest the following modifications:

(a) Standards for approved pre-service teacher education programs should be the responsibility of the professional governance board.

(b) Candidates for licensure must adhere to the pre-service education requirements by completion of an "approved program" or by certification that the applicant has satisfied all of the provisions of the Interstate Compact Agreement.

(c) Following successful completion of an approved program of pre-service education, an individual, on acceptance by a school system, must undergo a one-year teaching internship.

(d) Responsibility for evaluation of an intern's performance should rest with a team composed of representatives from the local bargaining agent, faculty from the teacher training institution and local school district administrators.

(e) To insure that an intern is provided maximum support in a non-threatening environment, NYEA recommends that the mentor be excluded from the formal evaluation process. Provision should be made, however, for informal input by the mentor during the evaluation process.

(f) The intern and the mentor must be provided a reduced class size and teacher load if the internship program is to fulfill the need for intern/mentor planning time and provide for maximum application of theory and skills.

(g) The internship program must be state funded. Consideration must be given to the financial impact of reduced class sizes in the participating districts. We recommend that an impact study be completed and a state funding formula developed.

(h) Interns should be subject to the application provisions of collective bargaining agreements.

(i) A second year of pre-license service must be completed subsequent to the internship. Certification of successful completion of the second year of teaching should rest with the local school administration.

(j) The successful completion of a master's degree in a functionally related field should be the final step in securing a license.

(k) NYEA believes that the current practice in New York of granting generic and speciality licenses based on a candidate's completion of an approved program services the state well. We believe, however, the system can be strengthened by a revision of standards and requirements for entry to the profession. These revisions should include elimination of a number of the equivalent routes to certification or licensure which presently exist. The development of revised standards, regulations and procedures for licensure should be the responsibility of a professional governance board.

(l) Provision must be made for those who may fail to complete a successful internship period during the prescribed period. NYEA believes the professional governance board should be the final arbiter in questions of the success or failure of an intern to complete an internship. The professional governance board should also prescribe programs for correction of deficiencies and the regulations governing requirements for repeating an internship.

HEALTH OCCUPATIONS PROGRAMS ON THE CAMPUSES OF THE STATE UNIVERISTY OF NEW YORK

Ruth E. Baines

State University of New York
Central Administration

It is a pleasure to respond to your request for an overview of the SUNY health science programs and articulation agreements with secondary schools.

Thank you for the opportunity. First, let me commend your committee. It has been enlightening to observe your meetings. Your deliberations have been extremely informative and I look forward to following them to completion.

I frequently encounter individuals who are not aware of the magnitude of the SUNY System. Let me take a few minutes to describe it.

Overview of System/Health Sciences Courses

The SUNY system consists of 64 campuses, including 4 University Centers, 2 Medical Centers, 13 Colleges of Arts and Sciences, 4 Specialized Colleges, 6 Agricultural and Technical Colleges, 5 Statutory Colleges and 30 Community Colleges. Within the system are four medical and two dental schools, as well as separate colleges of optometry, pharmacy, and veterinary medicine. There are 39 degree granting nursing programs. This includes three graduate programs. Approximately 163 programs are offered in allied health. One hundred and seventeen (117) allied health programs are at the Associate Degree level; the remaining 46 programs are at the Bachelor Degree level.

In order to put the SUNY programs in a perspective for your purposes, I have prepared a chart of the SUNY health science program offerings which complement the BOCES titles listed in your Futuring Project Sunburst. If you will refer to the chart, I would like to draw your attention to several points:

1. As you will note, SUNY offers a variety of health science programs. Forty-nine different allied health program titles are available at the Certificate and Associate Degree levels. In addition, there are more than 20 different title offerings at the Baccalaureate level. SUNY offers one or more obvious career mobility possibilities for each of the BOCES programs on the Sunburst, except Ward Clerk, Orthopedic Aide, Podiatric Aide and Central Supply Aide. Options for these groups are also available. For example, the Medical Assistant Program could serve as an upward mobility

track for the ward clerk. The licensed practical nurse, nurses aide, geriatric aide, occupational therapy aide, and physical therapy aide may be the most appropriate mobility tracts for the three BOCES aide categories (orthopedic, central supply, and podiatric).

2. The majority of these programs are relatively small and have a low faculty/student ration. This is demonstrated by the fact that 52% of the programs graduate 20 or fewer students per year. The remaining 48% graduate up to over 100 students per years. In most instances, the larger programs are in nursing.
3. The applicant pool is quite large, and admissions requirements, program design, and emphasis vary significantly. Although the number of applications has been dropping over the past few years, the selection process is extremely rigid.
4. Nearly twenty-three percent (23%) of the 148 programs on your chart are nursing programs. The other 78% are allied health programs.
5. In 1980 these programs graduated over 4,700 students. Forty seven percent (47%) of these graduates were nursing students. As you can see, for these 148 programs, SUNY produces almost as many nurses as all the other allied health disciplines combined.
6. Most of these programs are accredited by an external professional accrediting agency. This accreditation is in addition to registration with the State Education Department.
7. Most of the programs are offered on more than one campus. Several campuses offer the most common program titles, i.e., Dental Hygiene is offered on 8 campuses, Respiratory Therapy is offered on more than 6 campuses, Medical Laboratory Technology is offered on 19 campuses, and Radiologic Technology is offered on 9 campuses, with 36 different campuses offering nursing programs.

Clearly, career mobility opportunities in the SUNY system are plentiful. In addition, an examination of the location of BOCES and SUNY programs by County reveals that in almost every instance there are complementary SUNY and BOCES Programs in the same county. More specific information on these programs can be requested from the SUNY Central Administration Office of Educational Services, or from the individual campuses.

Articulation Agreements

Several examples of articulation agreements exist or are in the developmental stages between BOCES/LPN and SUNY Nursing Programs. These agreements are both formal and informal and include challenge examinations, transfer of credit and advanced standing options. Their success appears to be related to external funding (VEA) and support of the State Education Department.

The following SUNY Nursing Programs have some type of challenge examination or advanced placement arrangement:

1. Broome Community College
2. Canton Agricultural & Technical College
3. Cayuga County Community College
4. Delhi Agricultural & Technical College
5. Jamestown Community College
6. Jefferson Community College
7. Niagara County Community College
8. Onondaga Community College
9. Rockland Community College
10. Schenectady County Community College
11. Westchester Community College

In summary, the SUNY system has extensive health science offerings. Any BOCES student interested in career mobility should be able to easily identify a suitable career track.

BOARD OF COOPERATIVE EDUCATION SERVICES AND STATE UNIVERSITY OF NEW YORK CERTIFICATE AND ASSOCIATED DEGREE HEALTH PROGRAMS

BOCES Health Occupation Program (Sunburst)	SUNY Health Science Programs
Central Supply Aide	---
Dental Assistant	Dental Office Assisting Suffolk Community College (Cert)
Dental Assistant	Dental Assistant Mohawk Valley Community College (Cert) Dental Assisting Hudson Valley Community College (Cert) Rockland Community College (Cert) Dental Assisting Technology Dutchess Community College (A.A.S.) Niagara Community College (A.A.S.) Dental Hygiene Farmingdale Agricultural & Technical College (A.A.S.) Broome Community College (A.A.S.) Erie Community College (A.S.S.) Hudson Valley Community College (A.A.S.) Monroe Community College (A.A.S.) Onondaga Community College (A.A.S.) Onondaga Community College (A.S.) Orange Community College (A.A.S.)
Dental Laboratory Technician	Dental Laboratory Technology Dutchess Community College (A.A.S.) Erie Community College (A.A.S.)
EKG/EEG Technician	Electrocardiographic Technician Niagara Community College (Cert) Electroencephalograpic Technician Niagara Community College (A.A.S.)

January, 1982

BOCES Health Occupation Program (Sunburst)	SUNY Health Science Programs
Emergency Medical Technician	Emergency Medical Technology Erie Community College (Cert)
Geriatric Aide	Community Mental Health Assistant/ Gerontology North Country Community College (A.A.S.) Geriatric Aide Niagara Community College (Cert)
Licensed Practical Nurse Nurse's Aide	Practical Nursing Delhi Agricultural & Technical College (Cert) North Country Community College (Cert) Tompkins-Cortland Community College (Cert) Westchester Community College (Cert)
Medical Assistant	Medical Assistant Alfred Agricultural & Technical College (A.A.S.) Broome Community College (A.A.S.) Dutchess Community College (A.A.S.) Mohawk Valley Community College (Cert) Tompkins-Cortland Community College (A.A.S.) Westchester Community College (A.A.S.)
Medical Laboratory Technician	Biological Technology North Country Community College (A.A.S.) Medical Laboratory Assisting Sullivan Community College (Cert) Medical Laboratory Technology Alfred Agricultural & Technical College (A.A.S.)

January, 1982

BOCES Health Occupation Program (Sunburst)	SUNY Health Science Programs
Medical Assistant	Medical Office Aide Community College of the Finger Lakes (Cert) Medical Office Assistant Erie Community College (A.A.S.) Niagara Community College (A.A.S.) Medical Office Practice Erie Community College (Cert)
Medical Laboratory Technician	Canton Agricultural & Technical College (A.A.S.) Delhi Agricultural & Technical College (A.A.S.) Farmingdale Agricultural & Technical College (A.S.) Morrisville Agricultural & Technical College (A.A.S.) Broome Community College (A.A.S.) Corning Community College (A.A.S.) Dutchess Community College (A.A.S.) Erie Community College (A.A.S.) Hudson Valley Community College (A.A.S.) Jefferson Community College (A.A.S.) Monroe Community College (Cert, A.A.S.) Nassau Community College (A.A.S.) Onondaga Community College (A.A.S.) Orange Community College (A.A.S.) Rockland Community College (A.A.S.) Ulster Community College (A.A.S.) Westchester Community College (A.A.S.) Medical Laboratory Technology/Electron Microscopy Orange Community College (A.A.S.) Medical Laboratory Technology/Histotechnology Cobleskill Agricultural & Technical (A.A.S.) Monroe Community College (A.A.S.) Pre-Medical Laboratory Technology Jamestown Community College Tompkins-Cortland Community College Pre-Medical Technology Potsdam State University College

January, 1982

BOCES Health Occupation Program (Sunburst)	SUNY Health Science Program
Morgue Aide	Mortuary Science Canton Agricultural & Technical College (A.A.S.) Farmingdale Agricultural & Technical College (A.A.S.) Herkimer Community College (A.A.S.) Hudson Valley Community College (A.A.S.)
Nurse's Aide	Nursing Alfred Agricultural & Technical College (A.A.S.) Canton Agricultural & Technical College (A.A.S.) Farmingdale Agricultural & Technical College (A.S.) Morrisville Agricultural & Technical College (A.A.S.) Adirondack Community College (A.A.S.) Broome Community College (A.A.S.) Cayuga Community College (A.A.S.) Clinton Community College (A.A.S.) Community College Finger Lakes (A.A.S.)
Nurse's Aide (Cont.)	Nursing Corning Community College (A.A.S.) Dutchess Community College (A.A.S.) Erie Community College (A.A.S.) Fulton-Montgomery Community College (A.A.S.) Genesee Community College (A.A.S.) Hudson Valley Community College (A.A.S.) Jamestown Community College (A.A.S.) Jefferson Community College (A.A.S.) Mohawk Valley Community College (A.A.S.) Monroe Community College (A.A.S.) Nassau Community College (A.S.) Niagara Community College (A.A.S.) Onondaga Community College (A.A.S.) Orange Community College (A.A.S.) Rockland Community College (A.A.S.) Suffolk Community College (A.A.S.) Tompkins-Cortland Community College (A.A.S.) Ulster Community College (A.A.S.) Westcherter Community College (A.A.S.)

BOCES Health Occupation Program (Sunburst)	SUNY Health Science Programs
Occupational Therapy Aide	Occupational Therapy Assistant Erie Community College (A.A.S.) Orange Community College (A.A.S.) Rockland Community College (A.A.S.)
	Other: Dietetic Assistant Broome Community College (Cert) Extracorporeal Technology Upstate Medical Center (A.A.S.) Food Service Administration/Dietetic Technician Canton Agricultural & Technical College (A.A.S.) Erie Community College (A.A.S.) Westchester Community College (A.A.S.) Food Service Administration/Dietetic Technician/Nutritional Care Morrisville Agricultural & Technical College (A.A.S.) Dutchess Community College (A.A.S.) Rockland Community College (A.A.S.) Suffolk Community College (A.A.S.) Medical Record Technology Alfred Agricultural & Technical College (A.A.S.) Broome Community College (A.A.S.) Monroe Community College (A.A.S.) Opthalmic Dispensing Erie Community College (A.A.S.) Physician's Assistant Hudson Valley Community College (A.A.S.) Radiation Therapy Technology Upstate Medical (A.A.S.) Radiologic Technology Broome Community College (A.A.S.) Hudson Valley Community College (A.A.S.) Monroe Community College (A.A.S.) Nassau Community College (A.A.S.) North Country Community College (A.A.S.) Westchester Community College (A.A.S.) Upstate Medical Center (A.A.S.)

anuary, 1982

BOCES Health Occupation Program (Sunburst)	SUNY Health Sciences Program
	Other: Radiologic Technology/Radiotherapy Erie Community College (A.A.S.) Nassau Community College (A.A.S.) Surgical Technology Nassau Community College (A.A.S.) Operating Room Technology Niagara Community College (Cert) Veterinary Science Technology Delhi Agricultural & Technical College (A.A.S.) Farmingdale Agricultural & Technical College (A.A.S.) Canton Agricultural & Technical College (A.A.S.)
Orthopedic Aide	
Orthotics/Prosthetics Aide	Orthothotics Assistant Technology (Dutchess Community College (A.A.S.)
Pharmacy Aide	Pharmacy Aide Niagara Community College (Cert. Pending)
Physical Therapy Aide	Physical Therapy Assistant Nassau Community College (A.A.S.) Orange Community College (A.A.S.) Suffolk Community College (A.A.S.)
Podiatric Aide	---
Psychiatric Aide	Community Mental Health Assistant Dutchess Community College (A.A.S.) North Country Community College (A.A.S.) Sullivan Community College (A.A.S.)

BOCES Health Occupation Program (Sunburst)	SUNY Health Sciences Program
Recreational Aide	Therapeutic Recreation Leadership Suffolk Community College (A.A.S.)
Rehabilitation Aide and Homemaker-Home Health Aide	Alcoholism and Drug Abuse Sullivan Community College (A.A.S.) Community and Human Services Empire State College (AA, AS) Community Service Assistant Suffolk Community College (A.A.S.) Health Service Aide Columbia-Greene Community College (Cert) Human Services Genesee Community College (A.A.S.) Herkimer Community College (A.A.S.) Hudson Valley Community College (A.A.S.) Jamestown Community College (A.A.S.) Mohawk Valley Community College (A.A.S.) Onondaga Community College (A.A.S., A.S.) Rockland Community College (A.A.S.) Public Health Technology/Environmental Health Morrisville Agricultural & Technical College (A.A.S.) Hudson Valley Community College (A.A.S.)
Respiratory Therapy Aide	Respiratory Therapy (BS only) Upstate Medical Center (BS only) Respiratory Therapy Technician Mohawk Valley Community College (Cert) Onondaga Community College (Cert) Respiratory Therapy Technology Upstate Medical Center (A.A.S.) Erie Community College (A.A.S.) Hudson Valley Community College (A.A.S.) Nassau Community College (A.A.S.) Onondaga Community College (A.A.S.) Westchester Community College (A.A.S.)
Ward Clerk	---

January, 1982

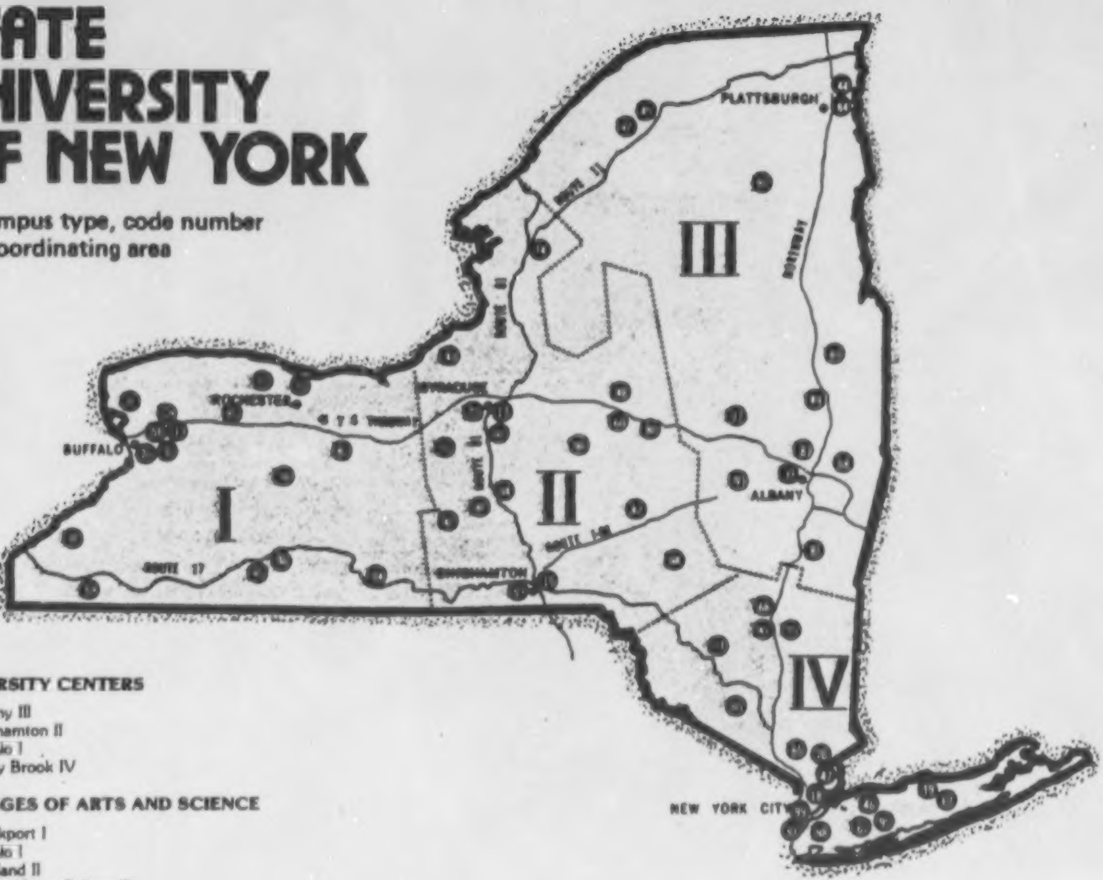
BOARD OF COOPERATIVE EDUCATION SERVICES AND STATE UNIVERSITY OF NEW YORK BACHELOR OF ARTS AND BACHELOR OF SCIENCE DEGREE PROGRAMS

BOCES TITLE	SUNY BACHELOR OF ARTS AND BACHELOR OF SCIENCE DEGREE PROGRAMS
Respiratory Therapy Aide	Respiratory Therapy
Homemaker-Home Health Aide Rehabilitation Aide	Community & Human Services Social Welfare Social Work
Occupational Therapy Aide	Occupational Therapy
Physical Therapy Aide	Physical Therapy
Medical Laboratory Technician/Assistant	Medical Technology
	Other: Animal Science Cardiorespivatory Science Cytotechnology Dietetics Environmental Health Environmental Science Health Science Health Sciences Education Health Service Management Human Nutrition and Food Medical Record Administration Nuclear Medicine Technology Physician's Assistant Radiologic Science & Technology Speech Pathology & Audiology

January, 1982

STATE UNIVERSITY OF NEW YORK

by campus type, code number
and coordinating area



UNIVERSITY CENTERS

31 Albany III
15 Binghamton II
20 Buffalo I
19 Stony Brook IV

COLLEGES OF ARTS AND SCIENCE

32 Brockport I
33 Buffalo I
34 Cortland II
49 Empire State College III
35 Fredonia I
36 Geneseo I
41 New Paltz IV
46 Old Westbury IV
42 Oneonta II
43 Oswego II
44 Plattsburgh III
45 Potsdam III
47 Purchase IV

CENTERS FOR THE HEALTH SCIENCES

20 Health Sciences Center at Buffalo Univ. I
19 Health Sciences Center at Stony Brook Univ. IV
98 Downstate Medical Center IV
97 Upstate Medical Center II

AGRICULTURAL AND TECHNICAL COLLEGES

91 Alfred I
92 Canton III
93 Cobleskill III
94 Delhi II
95 Farmingdale IV
96 Morrisville II

SPECIALIZED COLLEGES

40 Agriculture and Life Sciences at Cornell Univ. II
30 College of Ceramics at Alfred Univ. I
17 College of Environmental Science and Forestry II
40 College of Human Ecology at Cornell Univ. II
99 College of Optometry IV
48 College of Technology at Utica/Rome II
40 College of Veterinary Medicine at Cornell Univ. II
57 Fashion Institute of Technology IV
18 Maritime College IV
40 School of Industrial and Labor Relations at Cornell Univ. II

COMMUNITY COLLEGES

69 Adirondack III
53 Broome II
51 Cayuga County II
84 Clinton III
85 Columbia-Greene III
82 Community College of the Finger Lakes I
54 Corning I
55 Dutchess IV
79 Erie City I
56 Erie North I
13 Erie South I
77 Fulton-Montgomery III
81 Genesee I
80 Herkimer County II
58 Hudson Valley III
59 Jamestown I
74 Jefferson II
60 Mohawk Valley II
71 Monroe I
61 Nassau IV
75 Niagara County I
87 North Country III
72 Onondaga II
63 Orange County IV
65 Rockland IV
83 Schenectady County III
67 Suffolk County IV
73 Sullivan County IV
86 Tompkins Cortland II
68 Ulster County IV
70 Westchester IV

ORGANIZATIONAL STRUCTURE OF COMMUNITY COLLEGES IN NEW YORK STATE

H. Frederick Holmes
Program Development, State University of New York

Thank you for the opportunity to describe the organizational structure of the community colleges under the program of the State University of New York. I also want to discuss some of our current programmatic activities and concerns and share some of our plans for the 1980s.

There are 30 community colleges in the SUNY system serving well over 200,000 students annually in full- and part-time credit and non-credit courses and programs. Several of these institutions have branch campuses, while others have extension centers and satellite opertions within their sponsorship area and in nearby areas where there are either no public higher educational activities or where existing institutions do not offer the kinds of programs and services normally offered by community colleges. Community colleges enroll a high percent of minority students and students whose family's net taxable income is less than $10,000. The average age of our students is about 30, and the numbers in that age group whom we expect to serve will increase significantly.

As you must know, the community colleges are essentially open admission, comprehensive in curricular offerings, have individualized counseling and developmental study programs, are known for their outreach programs to the community, have outstanding placement and transfer records and quality instruction for citizens of all ages as well as economic and ethnic groups.

Financing is handled by a funding formula whereby State support covers up to 40% of the college's operating budget with the remainder of the income being provided by student tuition and local sponsor support. Beyond the basic state aid per full-time equated student, colleges are eligible for additional state aid for students in certain technical and business programs. There are also extra dollars provided the colleges who serve disadvantaged students. The University is currently attempting to have the funding formula adjusted to offset the inflationary pressures under which most of our institutions now operate.

Ruth Baines has already desribed the many degree and certificate programs in health occupations available throughout the University, and Mr. Dempster from Dutchess Community College will be describing some specific curricular activities at his institution. I will simply add that it is the community colleges' continuing education program that is most visible in its service area. This commitment to lifelong learning is an indication of the college's general reputation for accessibility and reaching out to the community. These institutions are often the center for educational and cultural happenings in their geographical areas. Incidentally, our "community" also includes those who are incarcerated. We serve a large inmate population.

As you have heard from Ruth and will hear from Dennis, the University's community colleges have good working relationships with various BOCES operations across the State. All three of us would be anxious to hear from you in terms of how you believe existing relationships can be strengthened and new relationships developed. I expect that both formal and informal articulation agreements will be developed between New York's secondary schools and community colleges, particularly in health occupations education in the '80s.

I would be pleased to expand on any of these plans and activities during the question and answer period.

NURSING ARTICULATION AGREEMENT BETWEEN A COMMUNITY COLLEGE AND A BOCES OCCUPATIONAL CENTER AND HOW IT HAS WORKED

Dennis Dempster
Dutchess Community College

In my capacity as Director of Admissions and Register at Dutchess Community College, I have worked with many incoming Nursing students, including those that have come from the BOCES LPN program and, in recent years, a number who were entering Dutchess under the nursing articulation agreement that we have with BOCES. My remarks this morning will describe this articulation agreement and my observations as to how it has worked. My comments will be largely practical and will be those of a functioning middle level college administrator. Problems will be identified with suggested solutions. I am hopeful that my comments about our experiences and any ensuing discussion may be of some help to this committee if they choose to make a recommendation concerning articulation.

Formal articulation efforts in New York State became reasonably widespread in the early to mid-1970's. One form that articulation took was the articulation of curricula between two educational levels. Because of the similar nature of career programs in BOCES and 2-year SUNY colleges, the vast majority of curriculum articulation agreements have taken place between BOCES and the local community college or BOCES and a nearby Ag and Tech college.

A major goal of curriculum articulation was and still is to eliminate the duplication of courses required of students who pursue study in the same field from one educational level to another. By eliminating course duplication where it existed, it was possible to shorten the time required for a student to reach his or her career goal. Eliminating course duplication also reduced the cost of training for both the individual and the state, and in some cases, the county. With a nationwide shortage of 500,000 nurses and with a demand for RN training that far exceeds the availability of training opportunities, there is every reason to hope that the nursing articulation between BOCES and 2-year SUNY colleges will be successful.

My presentation is going to focus largely on the nursing articulation agreement between Dutches Community College and the Dutchess County BOCES Occupational Center. First some background--

Dutches Community College was founded in 1957. It has offered a nursing program since its beginning. Graduates of our nursing program receive an AAS degree and are eligible to sit for the State Examination for Registered Nursing. Applications for admission to the Nursing program have always exceeded the available places and over the last ten years have been in a ratio of 4 or 5 to 1. As a result, we are seldom able to offer admission to applicants outside of our sponsorship area. The College graduates 80-100 students each year.

All of our required NUR courses have clinical components that are scheduled for hospitals or nursing homes. We share these clinical sites with three area 4-year colleges, two other community colleges, and two BOCES programs. There is a real shortage of clinical sites, and, as I will mention later, this has a negative impact on our articulation agreement.

The Nursing faculty all have Master's degrees and subscribe to the ANA philosophy that bedside nurses should be graduates of ADN programs and that Bachelor's degrees should be required training level for those in administrative nursing work.

The County BOCES Occupational Center opened its doors in 1968 and, likewise, has offered a two-year nursing program from the beginning. Its nursing program is two years in length with students spending five half-days each week in the BOCES training, usually during their junior and senior years of high school. Periodically, when there is sufficient demand, BOCES offers an intensive one-year nursing program for adults not in high school.

Graduates of the BOCES program are eligible to sit for the examination required to become a LPN. The student interest in the BOCES Nursing program has over the years been about equal to the available training spaces.

The average number of graduates of the BOCES program in recent years has been about 40. Of these graduates, 20% indicate to BOCES officials that they intend to enroll at Dutchess; 12%, on the average, actually do enroll in our program the fall immediately after their graduation. Others work as LPN's, and some later enroll as part-time students at the College. The success rate of BOCES graduates in our Nursing program is quite similar to the success rate of students who enter with no previous nursing training.

In 1974 BOCES and the College agreed to a curriculum articulation in nursing. Most of the push for this arrangement came from the administrations of each institution, but it was their respective faculties that worked out specific agreement. The agreement was a simple statement that basically stated:

> BOCES Nursing graduates who have the recommendation of their BOCES Nursing instructor will be granted proficiency credit for Fundamentals of Nursing, the first semester nursing course in Dutchess Community College's Nursing program.

This agreement reflected the feeling of both faculties that the BOCES curriculum covered the major content areas of the College's initial course. Experience has shown that certain concepts included in the College's Fundamentals corse are not covered in the BOCES program, and a special one-week course was developed and is now required for nursing students who receive proficiency credit from the BOCES program and, for that matter, any external source.

Our basic articulation agreement is not dissimilar to other agreements in the State. Perhaps some of the regional coordinators who are present today may wish to comment later on articulation programs in their areas.

During the six years that the agreement has been in effect, most BOCES graduates who enroll at Dutchess have been recommended for proficiency credit for our Fundamentals course. However, only about 10% of those have chosen to actually take the proficiency credit. I will explain this seemingly unusual statistic shortly. The BOCES grads who have taken fundamentals of Nursing have averaged a grade of C+ in the course.

How has the agreement worked? Has it achieved the goal of shortening the training time for nurses? Has it reduced the cost of training for the State and for the individual student? At best, it has been only partially successful in achieving its goals.

You will recall that I mentioned earlier that a number of area institutions use the same hospitals and nursing homes for the clinical parts of their nursing programs. As a result of this need to share these facilities, the College never has the total clinical facilities that it desires or needs. This shortage of clinical space limits the College to offering first semester courses only in the spring semester before enrolling in NUR 104 and NUR 106.

For the part-time student, this causes little problem since he or she will be carrying only one or two courses and will have the English, Behavioral Science, and Biology courses to choose from in the fall. The part-time student actually saves one whole semester by receiving proficiency credit for NUR 103 and also saves the cost of tuition of this five-credit course which, at the current tuition rate of $30 per credit, is $150. The State and County also better utilize their dollars because the space in NUR 103 that would be taken by this part-time student if he/she did not receive proficiency credit can be taken by a student who might otherwise be turned away and have to be served elsewhere or at another time.

The picture is not the same for students who might otherwise study at the College on a full-time basis, and I am afraid that this is still the large majority of the BOCES graduates who enter Dutchess. Being awarded proficiency credit for our Fundamentals course does not allow the full-time student to accelerate in the program for he/she must wait for the spring to enter the second semester nursing courses and then still have three full semesters of study remaining, just as does his classmate who had no previous nurse training. Thus, under our articulation agreement, the full-time student does not accomplish the goal of shortening the training period.

By receiving proficiency credit for NUR 103, the BOCES graduate has the option of carrying a light load during his first semester and concentrating on grades in other courses or filling the void with electives or enrolling in Fundamentals. The most common practice of BOCES students has been to take the Fundamentals course even though they are eligible to receive credit for it without enrolling. Very often it is the admissions staff who advise students to this course of action. This is particularly so when the student's chances of succeeding in the nursing curriculum are problematical. It is because so many full-time students who are eligible for proficiency credit for Fundamentals choose to take the course anyway that such a low percent, 10%, of BOCES graduates utilize their proficiency credit--and most of those who do so are part-time students. As a result of this choice, the full-time student who pays a flat tuition fee does not have the tuition dollar saving that the part-time student receives. He/she also takes a place in Fundamentals which would otherwise have been available for a late nursing applicant who will then have to be served elsewhere or at a later time. The State and County save no money and, in fact, have to provide state aid and tuition assistance for some students who, in actuality, did not have to be full-time.

We have found no solution to this problem of the full-time nursing student not realizing the goals of the articulation agreement. We have been unable to locate additional sites for the clinical portion of our nursing courses which would make it possible to offer all nursing courses at all times, including second semester courses during the fall. There have been no initiatives by the nursing faculties of either school to rework their nursing courses so that a full year of College nursing courses could be covered in the BOCES program. In fact, the opposite has happened--the College faculty have this year significantly modified the nursing curriculum and now feel that we will be unable to grant the BOCES graduate credit for the initial College course.

I am aware of a new articulation agreement worked out between St. Lawrence County BOCES and Canton Ag and Tech College. In this agreement the College will accept the nursing courses taken at BOCES as the first year of the College nursing requirement. Students in this program are, therefore, able to complete their AAS at Canton and sit for State Boards one year after graduating from BOCES and receiving their LPN.

The students in the St. Lawrence program must be selected, bright students and must be willing and able to take courses in their senior year at both the BOCES campus and the Canton campus. It seems to me that this program is an example of what can be done to develop an articulation agreement that achieves the goals of training time reductions and cost savings for all the students that participate. The designers of this program have evidently been able to rise above the differences that have prevented most faculties from developing a truly merged program. I believe Joyce Lemieux, who is coordinator of the St. Lawrence program will be here today and you may wish her to describe the program more fully.

In conclusion, I must say that the articulation agreement in our County appears better on paper than it works in practive. It serves the part-time nursing student as was intended. It does not do well by the students who attend full-time and, as a result, the agreement does not realize the potential for dollar savings anticipated by the student and the State.

To correct the agreement's shortcomings will require at least one of two changes. Either there must be an increase in available clinical sites so that our nursing course offerings can be expanded or, and perhaps more importantly, there must be increased willingnes on the part of nursing faculties at both levels of education to cooperate in the development of truly merged curriculums.

HEALTH PROGRAMS
AT
THE CITY UNIVERSITY OF NEW YORK

August A. Tuosto
New York City Technical College

CUNY Background

Before specifically addressing health programs at the City University of New York, I would like to give you some brief background about the University. The City University recently celebrated its 20th anniversary for it was in 1961 that the seven municipal colleges, then operated under the Board of Higher Education, became the City University of New York by action of the state legislature. But CUNY traces its beginnings back to 1847 when the oldest of its units, the City College, was established as The Free Academy following a public referendum. Its goal was to provide a college education to the needy and academically able high school graduates.

For more than a century, the City of New York was the sole support of its municipal colleges. New York State assistance was first provided in 1948 and since that time, the state has steadily increased its fiscal suport. The nine senior colleges and the Technical College will be completely funded by the state in 1983.

Today, the City University of New York is comprised of 19 units--nine senior (four year) colleges, the Technical College, seven community colleges, the University Graduate Division, and the affiliated Mount Sinai School of Medicine. These units service a student body that numbers approximately 172,000 and are located in all of the five boroughs that comprise New York City.

CUNY is unique in that a single administrative structure coordinates the community and senior colleges as well as graudate and professional schools under one Chancellor and Board of Trustees. The Council of Presidents, chaired by the Chancellor, provides coordination of university-wide policies and procedures. The attached organizational overview (Appendix A) identifies the colleges that comprise the City University.

Admissions Policies

The City University attracted national attention in 1970 as a result of its open admissions policy which guaranteed all New York City residents who had earned a high school diploma admission to a unit of The City University. This policy of admissions remains in effect today with two additional requirements:

1) Admission to a senior college requires at least an 80% high school average

or a rank in class at the 66th percentile,

2) Admission to a community college requires an average of at least 70% or better, or a rank in class at the 26th or higher percentile.

For transfer students, the policy varies according to the students' current status. Students who receive an Associate degree from a CUNY community college are guaranteed admission to a CUNY senior college, although it may not necessarily be to the program or college of their first choice. Students without a CUNY community college degree are considered for transfer to a CUNY college and program on the basis of credits completed and their gradepoint average.

Additionally, all prospective students must meet the standards of proficiency in the basic skills area of reading, writing, and mathematics as established by the (individual) college. The Board of Trustees has also mandated that students meet a University-wide minimal level of skills proficiency before entrance to the Upper Division.

These admissions policies succeed in carrying on the traditions of a public university and in providing access and opportunity to residents of New York City at The City University of New York.

The City University of New York has a long history of commitment to education in the health sciences. This commitment is evidenced by the diversity and range of quality programs which the University provides. Most programs are two or four years in duration and often include practical experience in a hospital or laboratory setting. Programs leading to the AAS, BA, Masters degree as well as to the MD are offered at the Universtiy.

I would like to briefly examine each of these programs and address the level of degree that may be obtained within the City University and any special requirements or additional information that may be of particular interst to you.

Associate Degre Programs

Let's start by looking at the Associate Degree Programs within the Univerisy. The attached chart (Apendix B) lists the degree programs that are available and the name of the college that houses each program.

The Animal Health Technology Program at LaGuardia Community College prepares students to become Animal Health Technicians. The course of study includes anatomy and physiology as well as theory and procedures of animal health. The program includes field work in the care of large or small animals in either a laboratory or community setting. Graduates are eligible to take the New York State Board examination.

The Community Mental Health Assistant Program enables students to understand the variety of mental health needs of a community. Students are trained to assist profesionals at agencies serving the mental health field. Clinical field work assignments are included in the curriculum in addition to such specialized courses as vocational rehabilitation, mental health and psychology. The program is offered at three campuses: Borough of Manhattan Community College, Kingsborough Community College, and LaGuardia Community College.

The Dental Hygiene Program trains students to take and process dental x-rays, clean teeth, keep dental records of patients, and manage the dentist's office. The courses at New York City Technical College include oral hygiene practice, preventive dentistry, anatomy, chemistry, and dental assistance. Graduates are eligible to take the New York State Board, Northeast Regional Board, and the National Board Dental Hygiene examination. Hostos Community College also offers a program in this area.

The Dental Laboratory Technolgoy Program is offered at New York City Technical College and prepares students with the skills needed for the construction of such dental appliances as dentures, crowns, caps, and bridegework. Course work includes dental physiology, dental laboratory theory, and dental metallurgy. In the fourth semester, students may take the National Board Certification examination for provisional certification.

The Dietetic Technician Education Program is a career-oriented one which conforms to the educational and professional standards of the American Dietetic Association. Students are trained as allied health personnel for the food service industry. The curriculum includes courses in nutrition, food service management, the sciences and liberal arts. The program has a clinical component and is offered at LaGuardia Community College.

The Environmental Health Science Program at Queensborough Community College enables students to study and manage environmental factors which may affect people's health in the specific areas of air, water and food.

Medical Laboratory Technologists are trained to conduct laboratory tests used by physicians to detect and diagnose disease. This program includes classroom work as well as practical experience. Graduates of this curriculum receive certification (without examination) from the New York City Department of Health as a certified lab technician. The program is offered at five community colleges: Bronx Community College, Hostos Community College, New York City Technical College, College of Staten Island and Queensborough Community College.

The Program in Medical Records Technology trains students to maintain records and analyze health information (as assistants to medical records librarian). In addition, students learn medical terminology, medical record science, anatomy, physiology and office practice skills. This program is offered at Borough of Manhattan Community College.

Medical Secretarial Science Program. Several of the community colleges offer medical specializations within the Secretarial Science program. Students gain specific knowledge in medical terminology, medical dictation and the use of machines and equipment found in a typical medical office.

The Mortuary Science Program trains students in funeral service and enables them to take the examination for licensing as a funeral director. This curriculum is offered at LaGuardia Community College in affiliation with a private institution, the American Academy-MacAllister Institute.

The City University of New York offers a variety of Nursing Programs at the Associate, Baccalaureate and Masters Degree Levels. In 1975, a "pre-nursing" sequence and entry criteria for nursing coursework was approved by the Board of Higher Education. All students who desire an undergraduate Nursing curriculum must be placed in a one-semester pre-nursing sequence of courses. This policy was initiated to help reduce Nursing enrollments, to provide for less crowding in clinic courses and to forecast success in Nursing coursework and on licensing exams.

The AAS Degree Program in Nursing is offered at six of the colleges: The Borough of Manhattan Community College, Bronx Community College, Kingsborough Community College, New York City Technical College, Queensborough Community College and the College of Staten Island. Students are prepared for the licensing examination for registered nurses. The program includes courses in anatomy, physiology, bacterieology as well as general education courses and practical experience.

A "Pre-Physical Therapy" Program leading to an AS degree is offered by Kingsborough Community College. Students learn to help restore a patient's full physical abilities and to prevent disability after a disease or injury.

A Program in "Pre-Pharmacy" is offered at both Bronx Community College and New York City Technical College. These programs emphasize courses in the sciences, especially chemistry and physics. At New York City Technical College, the program also includes a chemical technology concentration which focuses on plastics, textile and pharmaceuticals.

The Radiologic Technology Program trains students to assist physicians and radiologists in operating X-ray equipment and preparing patients for X-rays. The curriculum at New York City Technical College and Hostos Community College includes X-rays, physics, radiographic techniques, and anatomy as well as clinical experience and general education courses. Graduates are eligible to take the New York State licensing examination and the American Registry examination for certification.

Respiratory Therapists are concerned with a person's breathing, and the uses of complex machinery and medical gases to treat heart and lung conditions. This curriculum offered at Borough of Manhattan Community College includes anatomy, physiology and inhalation therapy. Graduates are eligible to take the Certification Examination and the written portion of the registry examination given by the National Board of Respiratory Therapy.

Occupational Therapists who receive an AS degree from LaGuardia Community College are concerned with the problems caused by physical injuries, developmental impairment, aging or psychological adjustment. Graduates may take the Certified Occupational Therapy Assistants Examination.

Ophthalmic Dispensing students are trained at New York City Technical College to make glasses and contact lenses, as well as to design and fit frames. The courses include geometric optics, physiology of the eye, and theory of contact lenses. Completion of the program qualifies graduates to take two examinations:

1. New York State Examination for licensing as an Ophthalmic Dispenser
2. New York State Examination for Certification as a contact lens fitter.

Many of the programs offered at our community colleges are avaiable in both day and evening sessions. Additionally, many of the programs are coordinated with the University's four year programs in the same area so that students may easily transfer to an upper division program to continue their studies. Having briefly described the health programs at our two year schools, I would like to discuss the four year programs. Appendix C identifies the programs and their institutions.

Bachelor of Science Degree Programs

The four-year programs in the Health Science areas lead to the Bachelor of Science degree and provide students with a solid classroom background as well as practical experience.

Communications Sciences. The University offers a BA in Communications Sciences at Hunter College which provides students with an understanding of the processes of human communication, and offers training in speech and hearing science and prepares students for graduate work in this field.

A Program in Community Health Education is offered at Hunter and York Colleges. The objective of this program is to prepare specialists to work with other health professionals in a variety of community organizations to meet health science needs and effect changes in personal and community health behavior. The courses include Principles of Health Education, Environmental Public Health Problems, and Introduction to Clinical Medicine. This is an Upper Division program at the Hunter School of Health Sciences.

Environmental Health Specialists (Sanitarians) apply their knowledge of physical, biological, and social sciences for the improvement, control, and mangement of environmental factors which affect people's health. The courses prepare students to conduct environmental control programs.

Additionally, students acquire skills in laboratory and field procedures for the analysis of water, food, and air pollutants. Hunter College offers the program in the 3rd and 4th year only. The York College program includes an internship.

The Program in Health Services Administration trains students to become health administrators for hospitals, health centers and other health related orgainizations. The interdisciplinary curriculum at Lehman College includes courses in liberal arts and sciences, health related courses and field work in health care facilities.

The Medical Laboratory Technology curriculum at Hunter and York Colleges includes courses in chemistry, microbiology and physiology. Students also work in hospitals or laboratories affiliated with the college they attend. The College of Staten Island also offers a four year degree program.

An Upper Division Program in Medical Records Technology is offered at Hunter College. Students are prepared to take the Accredited Record Techniccian Examination given by the American Medical Record Association and are trained to maintain and prepare health information.

A Baccalaureate Degree in Nursing is offered at five of our senior colleges. In the "generic" program, students earn a BS degree as well as prepare for the RN examination. An "RN Pathway" program is also available. This program is specifically designed for individuals who are already licensed and practicing in the nursing field but want to further their education by earning a BS in Nursing.

A BS in Occupational Therapy is offered at York College. Study in the biological, behavioral and social sciences is included.The curriculum also includes work in the medical sciences and occupational therapy theory and skills. The Program has an internship component which provides students with the opportunity to gain practical experience.

An Upper Division Program in Physical Therapy is offered at Hunter College. Students learn to evaluate disabilities, administer treatment, correct or minimize deformities and improve general health. Biomedical and physical sciences as well as mathematics are integral components of this program.

Students enrolled in the physician Assistant Program at City College are trained to assist doctors in the areas of primary care, preventive medicine and emergency care. This program is offered on the Upper Division level only.

Studies in Speech Pathology and Audiology are offered at five campuses within the University. These programs are concerned with the disorders that disrupt human communication, in particular, speech and hearing.

Advanced Degree Programs

The City University also provides opportunities for students to continue their studies on the post-graduate level. Masters Degrees in Nursing (Hunter College) and Psychiatric Nursing (Lehman College) are available. Students may also earn either a Masters of Business Administration or a Masters of Public Administration in the field of Health Care Administration (Baruch College).

Masters Degree Programs in Community Health and Evnironmental Health Science are offered at Hunter College. Graduate degrees in Speech Pathology and Audiology can be earned at Brooklyn College, City College, Hunter College, Lehman College, Queens College and at the Graduate School.

In addition to the traditional offerings, individual colleges have developed more flexible and diverse methods of serving and educating their students through Continuing Education programs as well as certificate programs. One such program in the health area is a one-year certificate program (offered by the College of Staten Island) leading to a certificate in "Medical Assisting." This is not a degree program but rather a certificate program which prepares students to work in doctors' office as as assistants.

The City University has also been affiliated with The Mount Sinai School of Medicine since 1967. In cooperation with The City University, The School of Medicine works to develop health education programs at both the professional and technician levels. In addition, medical students may take courses at the University to satisfy their elective requirements. Finally, the CUNY Graduate Center serves as the official degree granting institution of the Biomedical Sciences Doctoral Program and administers a MD/PhD program, the Medical Scientist Training program at Mount Sinai.

Two accelerated medical programs are also offered by The University. One is a special seven-year program offered at the School of Bio-Medical Education at City College. City College introduces the equivalent of the first two-years of Medical school into the undergraduate curriculum. Students who complete the work and pass Part I of the National Board Examination are accepted into the third year of one of the eight cooperating medical schools.* Students in the program receive the B.S. degree from City College after four or five years and the M.D. degree two years later. The program's objective is to train primary care physicians who will work in medically underserved urban communities.

The other program is a special seven-year BA-MD program offered at Brooklyn College in conjunction with Downstate Medical Center. Students complete three years of pre-medical courses and degree requirements at Brooklyn College. During their second year, they take the Medical Boards and apply to Downstate Medical Center. The B.S. degree from Brooklyn College is awarded after the fourth year and the medical degree is awarded three years later.

The foregoing programs, only briefly described, are evidence of the variety and range of health programs available at The City University. The level of credential that one may obtain ranges from a one-year Certificate to a Medical (M.D.) degree. Despite differences in the specific orientation of individual programs, all of the graduates emerge as health care workers. Their degrees attest to skills and knowledge acquired in a specific area. As such, they have a commitment to themselves, to The University and to their disciplines. This commitment involves the standards that are upheld by The University in order to prepare students to enter the world of the health care professional and to make a positive contribution in the health care profession.

The University is sensitive to the need for articulation among its various constituent Colleges and the local Board of Education and its constituent High Schools and encourages the individual units to engage in articulation agreements. Many such agreements do exist within The University, although in my opinion, not enough in the health disciplines, and I would encourage that more communication, dialogue, and agreements take place.

The time is right, the time is NOW!

*The cooperating medical schools are:
Health Services Center, State University at Buffalo
Health Services Center, State University at Stony Brook

Howard University
Mount Sinai School of Medicine
New York Medical College
New York University Medical School
State University Downstate Medical Center
State University Upstate Medical Center

EDUCATIONAL MOBILITY IN NURSING

Gail A. Rosettie

The State Board for Nursing
New York State Education Department

The topic that I am going to be addressing is educational mobility in nursing, as it currently exists, and to predict possible trends for the future. Little of what I say may be new; however, it is hoped that this presentation may bring us to a new level of awareness in the area of educational mobility in nursing in New York State.

I have had considerable experience as a faculty member in both conventional and non-conventional nursing programs. I have encountered a variety of student learning needs in my past experiences, and I would like you to pretend that you are the student in each of the following situations.

SITUATION I:

Sally Jones graduated five years ago from LPN school, passed the licensure examination and worked full time in an acute care setting to support her family. She wanted to pursue professional nursing education, but at the same time continue working. All the associate degree programs contacted required a full time Monday through Friday daytime commitment. In addition, no credit would be granted for prior practical nursing courses, her five years nursing experience and even for general education courses taken at a community college which appeared on the prectical nursing transcript. The student would enter the program beside those students who had no previous knowledge and experience in nursing.

SITUATION II:

Bob Smith was a medical corpsman in the army for five years. Since returning to civilian life he has been employed as an orderly at a local hospital. He is interested in becoming an RN because he realizes he can not function at the level he once did as a corpsman. Bob can not find a professional nursing school which will consider previous knowledge and experience, and therefore, he must enroll as a freschman in Fundamentals of Nursing. He also receives no credit for courses completed in foreign universities because the school has no mechanism for evaluating equivalent courses completed in other countries.

SITUATION III:

Mary Brown completed 2½ years of a 3 year diploma progrm prior to getting married. She took general education courses part-time while meeting family obligations, even though they moved every two years when her husband was relocated by his employer. She decided to return to nursing school when her children were in school all day. The only school in the area was a basic baccalaureate program. Only a couple of the general education courses she previously completed were transferrable and, of course, none of the diploma school courses were applicable because they were not college level and they were completed beyond the five years limit for transfer purposes. She enrolled as a full-time freshman nursing student. She only completed one year when the gas shortage prevented her from commuting to the campus.

These situations illustrate only some of the barriers to mobility in nursing education. (Full-time status requirement; scheduling problems; lack of opportunity to document previous knowledge and experience; rigid course sequence requirements; loss of credit when transferring.) Nursing educators have become increasingly aware of the needs of non-traditional students. Generally, educators in vocational and technical programs encourage the implementation of upward mobility practices, while those in baccalaureate and higher degree programs seem more cautious in implementing non-conventional approaches.

Flexibility provided by means of educational opportunities without unnecessary repetition of experiences or penalty of time should be available for those whose career goals, resources or circumstances change. I am sure you know the motto of The University of the State of New York - "Let each become all that he is capable of being". This means that all individuals should have the opportunity to achieve all that is in their power to achieve, and that society has the obligation to provide the opportunity. However, an opportunity is no guarantee - only a challenge and a pathway to a career goal.

Full recognition of learning achievements is a worthy educational and social goal. Achieving this goal depends to a large extent on providing equitable recognition for prior learning experiences. Unfortunately, the adoption of the procedures necessary to implement the granting of credit for prior learning runs counter to well entrenched institutional interests. It possesses a threat to already established program requirements and implies a need for more individualized and modular curiculum materials. Some schools may wish to retain basic programs to meet only the needs of traditional students or typically high school graduates. However, most schools are asked to respond to the needs of an increasingly heterogenous group of learners - remedial, average and gifted students of all age groups possessing a broad range of previous education and experience.

How Practical and Professional Nursing Schools in New York State are Meeting this Challenge:

Of the 63 programs of practical nursing currently approved by the State Education Department, at least 15 offer the student an opportunity to earn transfer college credit concurrently with the classroom and clinical courses needed to complete the approved course in practical nursing.

Of the 63 programs that admitted students Fall 1980:

11 admitted secondary students only
20 admitted post secondary students only
32 admitted secondary and adult students

From a review of the annual reports for the school year 1978-79, it is evident that there are more adult students admitted, enrolled and graduated than secondary students. A number of LPN programs provide advanced standing for nurses aides, orderlies and medical corpsmen.

Types of Curriculum Patterns in Professional Nursing Programs Which Foster Mobility in NYS:

Type I - A previously licensed student is admitted into a program especially designed to build on the prior level of nursing education. The student is already either an LPN or an RN from a diploma or associate degree program.

Ex. Helene Fuld School of Nursing is a 1 yr. hospital based associate degree program admitting LPN's

Upper Division Baccalaureate programs such as those offered for example at:

Utica College (recently 8 yr. NLN accredited)
Dominican College in Bleavelt
Pace University
SUNY New Paltz (admitting in Spring 82)

TYPE II: The student with some past education or experience, or both, in nursing or health related programs is admitted with advanced standing into the regular basic nursing program. Such advanced standing may be achieved through transfer or credit examinations. According to data on file in our office approximately 3 diploma, 19 associate degree and 20 baccalaureate programs have credit granting policies.

Ex. At the associate degree level many basic programs admit LPN's with advanced standing. For a few ex.:

Canton A & T - articulation program with secondary LPN program
Hudson Valley Community College -
Maria College of Albany -
Onondaga Community College -

Basic baccalaureate programs admitting diploma and associate degree RN's include:

SUNY - Buffalo
Russell Sage College
Mount Saint Mary

TYPE III: The student is admitted to a specially designed program that prepares for multiple-exit granting of credentials (career ladder concept).

Ex. Thompkins Cortland Community College admits students with the intent that they will complete the 2 year associate degree nursing program. However, students may exit at the end of the first year having met all the requirements to take the licensure examination for practical nurses.

To my knowledge there is no baccalaureate program specially designed to allow exit of students at the associate degree nursing level.

TYPE IV: The student is awarded a degree or certificate on the basis of successful demonstration of acquired knowledge, rather than attendance and completion of a particular program.

Ex. The only program in New York State and the entire country is of course the Regents External Degree Programs in Nursing at the associate and baccalaureate levels. (NLN accredited).

Flexibility Within Programs

In addition to the open curriculum structures, just identified, some schools offer programs which may be completed totally on a part-time basis. Others offer weekend and evening options for class and clinical. The same daytime basic programs of two or four years full-time may be available on a flexible schedule to be completed within three or six years respectively.

Open learning methods such as contract learning, modularized instruction, computer assisted learning and other independent study methods individualize instruction and allow students to proceed at their own rate.

Future Trends:

Some authorities have stated that non-licensed health care workers are going to remain in the nursing spectrum. Recently, however, a local hospital just announced the elimination of 30 nurse aide positions to curtail rising costs and a deficit budget. Many nursing aides and orderlies are unwilling to be condemned forever to dead-end jobs or positions which may be eliminated entirely. Likewise, nurses in all types of settings are being asked to take on increased responsbilities due to technological advances, necessitating continued education.

The Board of Regents has noted that by the year 2000, half the nation's population will be over 37 years old, and that one in eight Americans will be over 65. Therefore, there will be more adults and fewer children to educate. New technology will profoundly change the way we live and work. People will have to keep learning to adapt to rapid changes. People will learn by studying almost any subject when and where they want to - in school, on the job, in a subway while commuting, and at home.

How the SED is Assisting in Educational Mobility:

In April 1980, the Governor's Health Advisory Council appointed a twelve member Task Force to conduct a study of the nursing profession. One of the Task Force recommendations was as follows:

> "The State Educational Department, in collaboration with representatives from the three sectors of higher education (SUNY, CUNY and Independent) should meet to identify barriers to upward mobility for those persons wishing to move from one educational level in nursing to another, and to recommend appropriate action".

Those of us on the Nursing Education staff are responding to this recommendation by sponsoring an informational day April 30th to identify the various mobility options available from LPN to RN. (Review agenda).

The unit will follow up this informational day with regional meetings in the Fall to discuss situations specific to various regions of the state.

COST FACTORS

Introduction

At its tenth meeting the Committee discussed the cost implications of the preliminary recommendations formulated up to that point. Since a detailed knowledge of the Committee's preliminary recommendations was necessary in order to address this topic, the Committee recommended that speakers addressing this issue be selected from the Committee members and Regional Observers with experience in curriculum construction and administration of health related programs. for this reason Dr. Joan B. Penrose, Ms. Joyce Lemieux, Mr. Tom Castelli, Ms. Dorothy Fisk, and Dean Edmund T. McTernan were asked to prepare presentations for delivery to the Committee.

The papers prepared for this meeting are reproduced in the succeeding section. The paper prepared by Dr. Penrose was in outline form, and is reproduced in that format.

COST IMPLICATIONS FROM AN ADMINISTRATIVE VIEWPOINT

Edmund J. McTernan

School of Allied Health Professions
State University of New York at Stony Brook

I am told that Eskimo peoples have more than 100 different words which they use for the substance which we call by the single term, "snow". The word which an Eskimo would use to describe fluffy, fresh, dry snow (useless for construction projects), is completely different from that used for the type of snow which can be used to make a cozy igloo, and so forth.

I use that metaphor at the outset of a discussion on the cost implications of the recommendations which this committee has developed, because in our social construct the word costs really has many different meanings, and it would be foolhardy to approach any consideration of the cost implications of our recommendations, without first defining our terms: what kinds of costs are we really talking about?

The most obvious interpretation of "costs" which might be read into the topic which has been assigned to Tom Castelli and myself this morning might be a sort of analytical, gimlet-eyed-businessman analysis of the Future HOE program which this group has recommended, as opposed to the direct costs of the present program. Will the new program require an increase of .007 teachers per student? Will an increase in pupil transportation costs of $3.10 per year be needed?... questions of that ilk. I hate to disappoint any closet cost accountants who might be here today, but I certainly lack the data and expertise with which to develop such predictions. What is more, I believe that those kinds of cost considerations are both illogical and premature.

I would submit to you, however, that there are cost implications which can be considered here today, and which are in fact far more significant and important than the issue of fractional increases or descreases in the cost of instruction per student in the state or in a given school district. Those are: 1) the consideration of the social and ecomonic value of the recommendations made; or 2) of failure to incorporate those recommendations into the state's new plan for occupational education.

Presumably, it is still the function of our public education system to guide students towards the achievement of happy, economically productive, citizenship. If my understanding is correct, vocational education has an added responsibility for assuring to its graduates a high level of employability, following immediately upon their graduation. If the other sectors of public education adhere to curricula which are outdated or outmoded, it should be easier for them to get away with it, for remediation can and does occur during the college years. Occupational educators are really on the line, however. They turn their product (for the most part) directly over the potential employers. If you have prepared your students for jobs which do not exist, or with skills which are obsolete or inappropriate, that fact will be held up to public scrutiny at once.

The message here is that, far from considering the qestion of whether or not the HOE program needed for the future can be afforded, the real question is one of whether an educational system which no longer "meshes" with the needs of the patient care marketplace, could possibly be tolerated. Even if the recommendations which this committee has made for HOE education proved to be more costly than the current curriculum, it would still be infinitely less expensive than the inestimable cost of wasting resources, talents, and aspirations, which would result from continued delivery of an educational system which prepares graduates for jobs which no longe exist.

I submit that the incredible hidden costs of failure to respond to social and economic forces, by adaptation of the HOE system in the directions we have suggested, can best be suggested by a quick reivew of our committee's assessment of the changes which are occurring in the society, and of the specific responsive recommendations which we have made.

Early in the deliberations of this committee, two years ago, we promptly and unanimously identified three social trends which are occurring in this nation, to which our health care and educational systems will have to respond. These are not issues of choice, permitting a voluntary response or lack of one; rather, they are inexorable, unavoidable, inevitable developments which will be major characteristics of the societal landscape ten and twenty years from now, like it or not.

The first of those trends which we identified was the "aging" of the population. Today, almost 11% of all Americans are aged 65 or older, and it is predicted that the proportion will grow by an additional one-fifth (to about 13%) by the end of the decade. By 1990, estimates are that there will be more people in what is called the "old old" category (over 75 years old), than exist today at age 65 and up. Demonstrably, people in the last decades of life use about twice as many units of health care services each year, as do their younger counterparts. People 65 and older are admitted to hospitals at twice the rate of the general populace, and their average length of stay, once hospitalized, is about twice as long as all hospital admissions. Experts such as Leslie Libow have pointed out that the typical older aged patient presents for care with 5, 6, or more different etiologic problems. Obviously, the aging of the population is a phenomenon which cannot be responded to by maintaining our present social structures unchanged from their present shapes and forms.

The second general trend we identified is, like the aging question, somewhat of a tribute to the past successes of our health care system; that is, the shift in the nature of the disease entities which are now facing the society, from acute and infectious challenges, to the chronic and disabling diseases. Health care has done such a good job, that people now survive long enough to develop those 5 or 6 chronic problems as older citizens. This shift also has enormous implications for health care personnel and for educators; whereas acute diseases were dealt with dramatically and abruptly, and with prompt results (typically in a hospital setting), care in the future will typically be of a less dramatic nature, often requiring long-term efforts, with results that will be less magic and noticeable. Care will be given in settings different from the modern hospital, in many cases. These changes will require different kinds of health workers, trained in different ways from at present, and who find their job satisfactions through different kinds of emotional rewards than today's health workers are conditioned to expect!

Third, we identified changes in technology as a major fact and factor of life in the decades ahead; the main points we agreed upon were that technology would certainly advance, but we could not predict how that advance would become manifested. We did agree that any educational system which did not prepare trainees to cope with change, would be doomed to failure.

As one reviews a table of our recommendations, I submit to you that it is clear that those recommendations were made with an unfailing realization that these changes were indeed occurring, and the future HOE would have to be responsive to both what we are sure of, and unsure of, in the future.

We foresaw rapid change in the nature of the patient load, of the disease entities which would afflict our society, and of the explosive technology. There is a clear call for vocational education to get away from training students in narrow, isolated job titles; we have recommended the development of job clusters to facilitate lateral mobility between job titles, and the development of core educational concepts which should greatly expand the employment potentials of the graduates.

We have also recongized the important reality, that individuals change in their goals and aspirations; several of our recommendations reflect our belief that we should not condone a system which forever locks an individual in, at a particular level of function. We have called for articulation between levels of education, to enhance the "career ladder" concept. How can one calculate the administrative costs of a life spent in boredom and frustration, at a job which fails to use an individual's talents to anything approaching an optimal degree?

In my opinion, a careful cost analysis of the recommendations of this committee, conducted at some future date, might well expose the fact that several of these suggestions are cost saving, rather than cost increasing. Implementation of the core concept, for example, might well be expected to demonstrate savings of scale, when larger groups of students are brought together to learn a core concept, rather than having that same concept repeated again and again, by separate teachers, to smaller student groups. The cost of providing "overlay" training to workers in an obsolescent occupation, as opposed to total retraining from the beginning (a benefit to be expected from our core and career clusters idea) would certainly be cost saving. Our recommendations, after all, do not add up to a call for lengthening the duration of HOE programs, or for dramatically improving the teacher-student ration, or for other steps which would obviously add significantly to costs for the Future program as contrasted with the present one. Rather, our recommendations deal primarily with rearrangements within the educational envelope which now exists; steps which may as well be expected to save on costs, as to increase them.

One cannot hang a price tag on things like reduced duplication of instruction, enhanced employability of graduates, increased career choice, and maximization of human resources, but I believe that these are all cost-benefits which are built into the program we have suggested.

One recommendation which we have made might create a significant added cost to the educational system; that is, the development of a statewide standard of competence, and of a mechanism to insure that all graduates, of all programs, possess that level of ability before they are allowed to seek employment in patient care. The trade-off for that added cost is peace of mind; it seems to me that each of us as responsible educators, and the State Department of Education as a public agency, have a basic moral obligation to assure that peace of mind to those patients who will turn for care to the students who will graduate from HOE programs in the years ahead.

In summary, my "guesstimate" is that the program we have proposed, with the possible exception of the competence assurance suggestion, will not be grossly more expensive than the present curriculum, and that it may, in fact, be less expensive in some ways. In any case, my basic premise is that, costly or not, the recommendations must be adopted, for failure to adopt them will result in a far more staggering cost... programs which do not recongize the new realities of the health marketplace, and which will produce unemployable graduates.

I have one further thought which I would like to suggest for your consideration this morning. As you know, I represented this committee, along with Donna Ahnert, at the Alternative Delivery Systems Task Force meeeting on February 24 and 25. I found that to be a rather disturbing experience, especially since I was thinking ahead to these remarks this morning. My disturbance was due to the fact that I detected an attitude, not on the part of all, but certainly of a strong minority, that this futuring process was really designed to lead to some "fine tuning" changes in what is being done today... not to any really subsantive changes. People were quite open about protecting their turf as they now know it; "We've been teaching this course for years, and we're not about to give it up." I have not detected that attitude very much in this committee, and I believe that is to the credit of us all. If we will end this project with a set of recommendations designed to protect what is now being done, with only minor changes... and fail thereby to plan a system which will meet these dramatic social and health care changes which are occurring in the real world -- this effort will have been futile and cost-ineffective, indeed.

I have been proud to be part of this committee, and I believe it can well be proud of its deliberations and recommendations. I am convinced they are without exception valid and needed. There is not question in my mind that the recommendations we have made, once implemented, will be cost-effective, and that they will help the HOE system to meet the new needs of the health care system to which the students graduate. I hope you, my colleagues over these past two years, agree with that assessment.

COST IMPLICATIONS FOR HEALTH OCCUPATIONS

Tom Castelli
Rockland County BOCES
Center of Occupational Education

Thank you for this opportunity to present to you my position on the cost implication of the HOE Committee's recommendations, by comparison of the futuring program costs vs a current program cost, and to look at possible alternatives for reducing cost factors.

The Rockland County Health Program

My report will highlight on the present Health Occupations Education Program offered at the Rockland County BOCES Center of Occupational Education. In the fall of 1958, I had the pleasure of implementing Rockland's first Health Occupations Education program at the Occupational Education Center. Over the years, we have expanded on the secondary level the Health Occupations Education Program to include Practical Nursing, Nurse's Aide and Practical Aides. Practical Nursing and Home Health Assisting, adult programs, have been offered at the Center since 1962. Our local community college, through a mutual agreement of both ageicies, initiated in 1968 a Dental Assisting Certificate Program, in 1971 the Associate Degree for Registered Nurse, and more recently has offered certificate programs in the laboratory technician areas. Rockland County is also fortunate to have a baccalaureate program offered at the Dominican College (started in 1975) which many students have since enrolled in from the BOCES LPN and the Rockland Community College Associate RN programs.

The Rockland County secondary and adult health occupation programs have always had four ingredients (as the other secondary occupational education programs in New York State) which provided for the successful operation of occupational education programs. The first ingredient is that there are readily available in the vicinity, for clinical practical experiences, many private and public health facilities. The second ingredient is that in the past, now in the present, and as projected for the future, the demand for a cross-section of health career employees is more than what local educational agencies have been or will be able to provide. The third, as with any vocational education program offered, is the placement of those students directly into the world-of-work and/or to continue their education in post-secondary agencies. The fourth, and I feel one of the more important administrative ingredients in offering any occupational education program, in addition to being most effective, is that the program operates in a most efficient manner possible.

Program success has been measured by the continued local budget support from the component school districts and the success rate of the completers of programs. Students, parents, board members, employers, state and federal agencies are also interested in the success rate of past graduates. Placement in the Health Occupation Programs has been extremely high - most agencies have continued successful placement rates in the 90-100% range for the Practical Nursing students. Health Occupations students have also an extremely high success rate continuing the ladder-lattice concept in the health career areas.

The Rockland Conty Program monitors and evaluates all programs annually to ensure that students are properly prepared for the world-of-work and/or further education. The student's basic skill competencies as they relate to his/her chosen occupational education program modules, are reviewed by each program occupational consultant committee and staff, based upon the criterion reference measurement and employability profiles.

The reason for expanding on present day practices and taking a brief look at the success of occupation programs in New York State is to place emphasis on the continuous monitoring and evaluation of all programs offered at area centers. The Occupational Health Consultant Committee and the Occupational Education staff continually evaluate the health education courses to ensure that the curricula, facilities, and equipment are kept abreast with the ever changing needs of the public and private health care agencies. A look at the program and/or curricula changes proposed by the Futuring Concept does not nor will it frighten any of the present public occupational education agency staff, since any new and emerging health occupations, and/or changes in health practices, have always been monitored and evaluated, with the necessary changes being made to ensure the success of educating the students enrolled, and that up-to-date employment practices are met. Emphasis in using the same present day practice in using consultant committees and staff to monitor programs in futuring will ensure that student and employment needs are met.

Now let's look at the proposed futuristic program structure for Health Occupations Education; although Chart No. 1 identifies both Direct Patient Care, Laboratory, and Support Occupations, I will be reviewing the cost implications related to the Nurse Care Core for the secondary level students scheduled for Practical Nursing only.

Chart No. 2 and Chart 2-A give a comparison between the current Health Occupations Education program structure and the proposed futuristic program

FUTURING HOE PROGRAM STRUCTURE

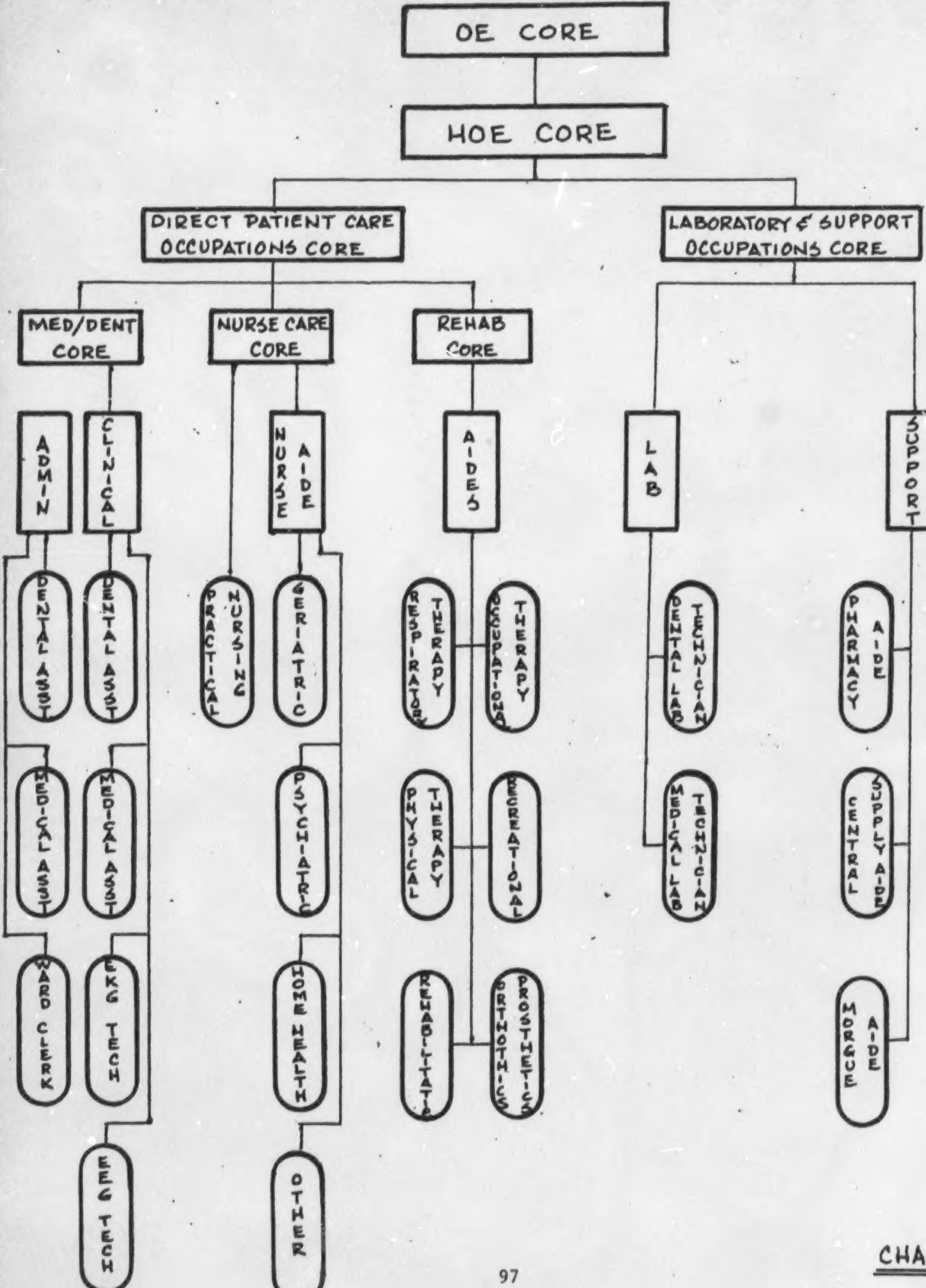

OE CORE
HOE CORE
DIRECT PATIENT CARE OCCUPATIONS CORE
LABORATORY & SUPPORT OCCUPATIONS CORE
MED/DENT CORE
NURSE CARE CORE
REHAB CORE
ADMIN
CLINICAL
NURSE AIDE
AIDES
LAB
SUPPORT
DENTAL ASST
DENTAL ASST
PRACTICAL NURSING
GERIATRIC
RESPIRATORY THERAPY
OCCUPATIONAL THERAPY
DENTAL LAB TECHNICIAN
PHARMACY AIDE
MEDICAL ASST
MEDICAL ASST
PSYCHIATRIC
PHYSICAL THERAPY
RECREATIONAL
MEDICAL LAB TECHNICIAN
CENTRAL SUPPLY AIDE
WARD CLERK
EKG TECH
HOME HEALTH
REHABILITATION
ORTHOTHICS PROSTHETICS
MORGUE AIDE
EEG TECH
OTHER

CHART No1

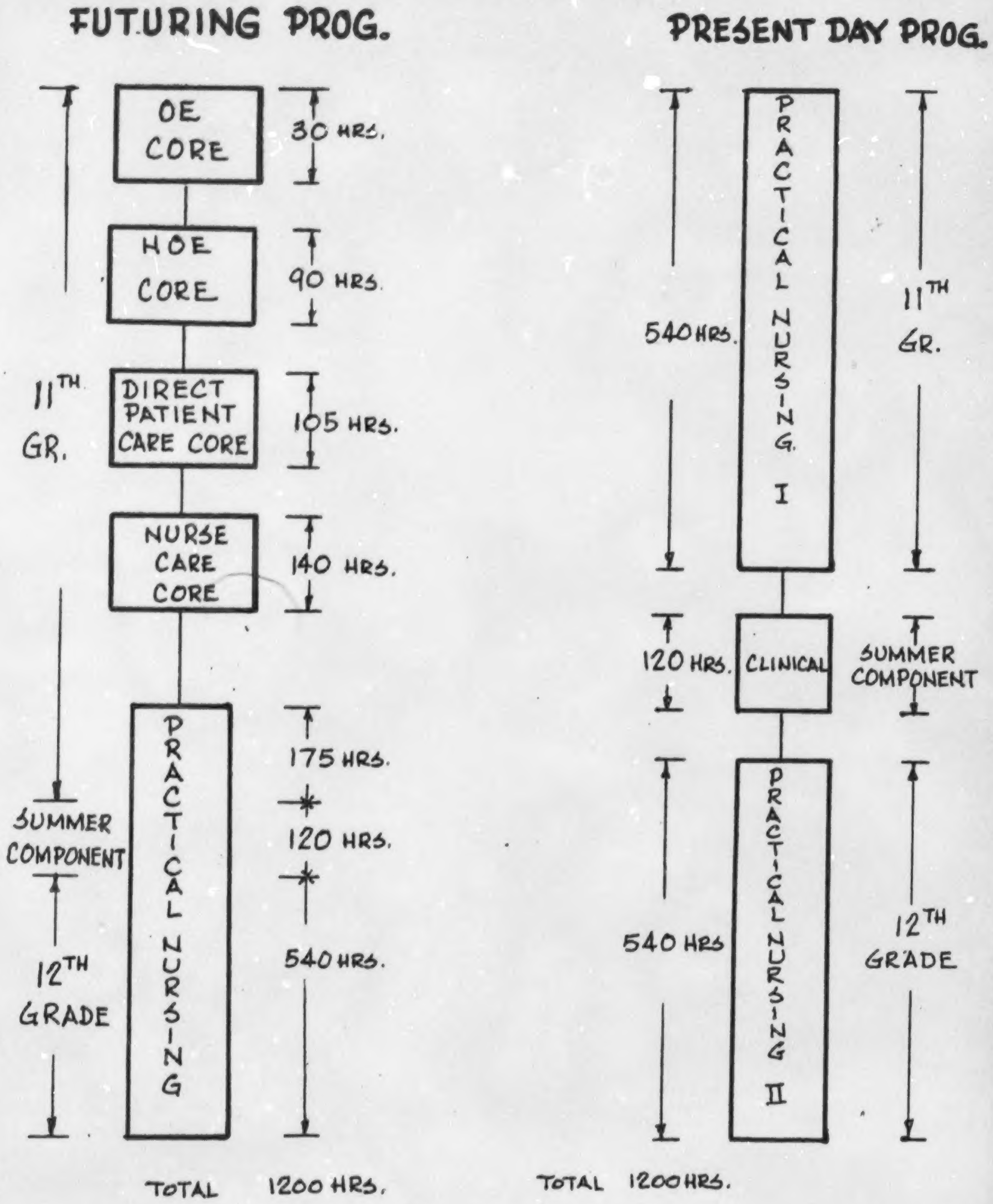

FUTURING PROG.
OE CORE
30 HRS.
HOE CORE
90 HRS.
11TH GR.
DIRECT PATIENT CARE CORE
105 HRS.
NURSE CARE CORE
140 HRS.
PRACTICAL NURSING
175 HRS.
SUMMER COMPONENT
120 HRS.
12TH GRADE
540 HRS.
TOTAL 1200 HRS.
PRESENT DAY PROG.
PRACTICAL NURSING I
540 HRS.
11TH GR.
CLINICAL
120 HRS.
SUMMER COMPONENT
PRACTICAL NURSING II
540 HRS
12TH GRADE
TOTAL 1200 HRS.

CHART No.2

ENROLLMENT - FACILITY - STAFFING STRUCTURE

11th GRADE

STRUCTURE	STUDENT		CLASS RM		LAB		INSTR		CLIN INSTR	
	AM	PM	AM	PM	AM	PM	AM	PM	AM	PM
PRESENT DAY	0	40	0	2	0	1	0	2	0	1PT
FUTURING	20	20	1	1	1	1	1	1	1PT	1PT

SUMMER COMPONENT

STUDENT	*CLINICAL INSTRUCTOR
30	3
30	3

*Summer clinical program is a four-week, six-hour day program held at one of the health care agencies

12th GRADE

STRUCTURE	STUDENT		CLASS RM		LAB		INSTR		CLIN INSTR	
	AM	PM	AM	PM	AM	PM	AM	PM	AM	PM
PRESENT DAY	30	0	2	0	1	0	2	0	1PT	0
FUTURING	15	15	1	1	1	1	1	1	1PT	1PT

CHART No.2A

structure. Assumptions were made in order to compare both programs for cost efficiencies.

Assumption #1 - each year 100 new students will be entering in the Health Occupations career programs, of which 40 students would be scheduled in the Practical Nursing sequence.

Assumption #2 - instructional units, as they relate to modules and student competencies, would be completed in both program structures, for a total of 1200 hours.

Assumption #3 - the demand for completers of these programs would be continuous, such as: the need identified from prospective enrollments, requests, continued support from component school districts; and the continuous employment needs will be identified.

Assumption #4 - that the Health Occupation Education program is not duplicated in the immediate area by secondary agencies--that one agency has been identified to provide for the instructional needs of students in a particular occupational education program.

Assumption #5 - that the instructional units identified in the futuring OE, HOE, and Direct Patient Core Cores are similar to those units taught that are absorbed within the present day Health Occupations Education programs.

Assumption #6 - that teachers in the futuring programs have the capabilities of teaching the OE, HOE, and Direct Patient Care Core modules along with the specific skills modules identified in the Nurse Core classes.

As can be viewed in Chart No. 2, without having budget items identifying the cost of operating each program, the Futuring Programs would cost the same to support as a present day program structure. As long as state regulations are not changed relative to the number of hours mandated, the Futuring Program structure will be identified in Chart No. 2.

The budget needs for Chart No. 2 are shown on Chart No. 2-A which lists facilities, staffing and the number of students.

Futuring Alternatives

Local agencies should consider possible alternatives which would eliminate the summer clinical component of 120 hours, in order to decrease the cost of this particular health program. After reviewing several alternatives such as: recess periods; local schools being responsible for certain CORES; post-graduate or 13th year program; starting the health program in the 10th year of high school, etc., my recommendations would be for LEA's to consider for both effectiveness and efficiency the following three alternatives:

1st Alternative: that the local schools be responsible in providing the OE Core to students in their home schools prior to enrolling in the Health Programs at an Area Occupational Center.

2nd Alternative: to cut back the number of hours required to qualify for state board examinations from 1200 hours to 1000 hours. Past experience has shown that students receiving 1000 hours in the Practical Nursing Programs qualified and successfully passed state board examinations. There is no evidence to my knowledge that justifies 200 additional hours would make a better practical nurse or that it would ensure the individual passing State Boards.

3rd Alternative: that the local schools provide a 10-week block of time in a student's sophomore (10th grade) schedule to take, on a half-day basis, the OE and HOE. Cores at an Area Occupational Education Center before continuing in their 11th year Health Occupation Education sequence. This may present a scheduling problem of 10th grade classes for the local school districts.

One has to appreciate and understand that local component school districts may not be able to afford the luxury of supporting the futuring concept, if given a choice, because of budget and scheduling constraints. I am concerned with the State Education Department's futuring structure being mandated to local component school districts without assuring LEA's increased state and/or federal assistance to compensate for any increased costs. This mandate may cause Occupational Education in New York State to become limited to those areas in the state that can afford the new concept and/or will limit the scheduling of Occupational Education offerings to their student body.

In conclusion, may I state that I agree 100% with the concepts of futuring and the methods by which the structure is being develooped, since the new concept will try to reach the ideal state in which Occupational Education programs, anywhere, should be taught. However, I have not heard at any time how the new concept is to be supported, or if there will be increased aid to LEA's.

The assistance I speak of from the State Education Department to the area centers and the LEA's is for: in-service workshops to teachers and administrators; costs for curriculum revision, new printed program materials, and course fliers; costs to revise the manual or the computerized student reportive data; the increased expansion of instructional time under futuring that will be required for one year program offerings for the Nurse's Aide and Rehabilitation Aide programs; increased costs to local budgets relative to increased administrator's time dealing with futuring; and if the additional costs of implementing futuring will provide specific benefits commensurate with the increased budget items on the local level.

I would be happy to expand on items in my report during the question and answer period.

FINANCING EDUCATION: OCCUPATIONAL AND HEALTH OCCUPATIONS EDUCATION

Mary V. Wiles
Health Careers Bureau
New York City Public Schools

In order to ascertain the cost or financial implications of the recommendations made by the Health Occupations Education Review Committee for the New York State Health Occupations Education curriculum, it is essential to have some understanding of how education is now financed in an urban setting in New York State, and an awareness of influences that are critical to the costs of education. First, in line with every other aspect of life in the United States, the cost of education has steadily increased over the past decade. Second, financing of public education is shared by the Federal Government, the State Government and the local school district.

Federal aid developed without an overall plan. It developed in response to immediate national concern for education. The result is that there are various methods for allocation of Federal funds by the Federal Government. The three methods most generally used are:

1) Allocation of Federal funds directly to State Educational Agency from the United States Office of Education. The amount of the allocation is computed using the formula stipulated in Federal Law and Federal Rules and Regulations.
2) Allocation of funds directly to State Education Agency. Amount of local educational agency's allocation is not specified by the Federal Agency. The unused portion of local educational agency's allocation may be used by another local agency.
3) Allocation not directly to State Educational agency but to local educational agency from United States Office of Education.

Nationwide the Federal share of the public education school dollar is above nine percent, but varies state by state.

As far back as 1917, Congress determined that Vocational Education was more expensive than college preparatory instruction and affirmed support of vocational education on the Federal level in the form of the Smith-Hughes Act of 1917 to promote vocational education through support of vocational education facilities and vocational education programs. More recently, passage of the

Vocational Education Act in 1963 guaranteed more consistent Federal assistance to states to expand and improve vocational education. The higher expense of Vocational Education was reaffirmed in several recent studies (Anderson, 1966; Cage, 1968; March, 1969) which documented Vocational Education to be one-third more expensive than regular academic education. Vocationally oriented instruction demands smaller classes, more space, more equipment, closer supervision, more intensive counseling, use of experience sites, and instructors who have practical employment experience in their area of specialty.

The process by which states provide financial aid to schools is complex. Nationally the states' share of total public school revenues has continued to grow since Fiscal Year 1971-72. However, states vary widely in the proportion of the school dollar provided. By State Legislation enacted in 1978, New York is using an aid ratio formula for allocating aid to public schools for operating purposes. Aid is generated in inverse proportion to a district's amount of wealth: low wealth districts receive a relatively high amount of aid; high wealth districts, a relatively low amount of aid. In essence there is the guarantee of Minimum Aid, or a Flat Grant.

The total general aid per year from the state for New York City:

Operating Expense Aid	75%
Building Expenses Aid	7%
Transportation Expense Aid	9%
BOCES	4%

The 1979-1980 budget for New York City Board of Education was $3,210,000,000 which delivered services to 960,327 public school pupils, with an average direct instructional cost per pupil of $2,037. The average total per pupil expenditure was $3,126 for the 1979-1980 fiscal year. The New York City Board of Education budget is organized into eight major functional budgeted areas.

Direct Instructional Programs
Indirect Instructional Programs
Ancillary Pupil Support Programs
School Buildings
City and District Wide Administration
Miscellaneous Expenses
Debt Service
Non-Public and Adult Education

In addition to functional areas and cost components, the budget is organized according to the two basic sources of revenue, "tax levy funds" and reimbursable funds." Tax levy funds are revenues from city taxes primarily. Reimbursable funds refer to revenue received from the Federal Government. Tax levy funds are used to meet the school system's basic operating expenses, and accounted for 90% of the 1979-1980 budget. Reimbursable funds must be applied to support specific categorical programs. The total pupil enrollment determines the "per pupil" costs budget. Per pupil expenditures are calculated for direct instructional costs by level and per pupil costs are calculated for expenditures for functional areas.

		Instruction Expenditure	Enrollment	Per Pupil Cost
By level:	High School	$496,794,000	291,132	$1,707
		Instructional Expenditure	Total Enrollment	Average Per Pupil Cost
	All Schools	$1,956,208,000	960,327	$2,037

The unit allocation system, is the method currently in use to provide personal service allotments in staff units. All tax levy funds allocated directly to schools are equated into units by estimating the average teacher salary and dividing this into the dollar amount for day high school instruction. This is the unit value of a teacher. Average budgeted salaries are developed for all pedagogic and administrative personnel. Schools recieve allocations in units and convert these units into various position titles.

The one hundred ten (110) New York City Public High Schools are organized into six categories:

- Academic - Comprehensive
- Specialized
- Vocational - Technical
- Educational Options
- Independent Alternative

The 68 Academic Comprehensive high schools which are in the majority, provide a broad range of educational opportunities by combining the college preparation curriculum with a large number of career-oriented and shop courses and a wide selection of electives. The 21 Vocational-Technical high schools combine training in approximately 70 skilled trades and programs with a generalized secondary education. Some courses prepare students for entrance into the world of work upon graduation. Other courses are geared to prepare students for higher education and training.

There are Health occupations Educations programs city wide in the five boroughs, in Academic/Comprehensive high schools, in Educational Options high schools and in an alternative high school. A two-year Health Occupations Education sequence is the most common format. All offer Introduction to Health Careers, or Introduction to Nursing in the 10th year or 11th year.

When the Health Occupations Education Curriculum structure recommended by the Health Occupations Education Futuring Committee will be ready for field testing, the New York City Public School System will provide an excellent base for this activity. Occupational Education is well entrenched in the New York City Public School System; New York City's career/occupational education delivery system is vast and complex; the Chancellor is committed to Occupational Education; and members of the Board of Education also have commitment to a philosophy supporting career education. Furthermore, the Office of Career and Occupational Education is presently in the throes of planning to celebrate its tenth anniversary. Although early on there was limited support for expansion of the career education network, and although fiscal uncertainties continue to exist, the Board of Education is currently involved in planning for the use of tax-levy funds in Fiscal Year 1982-83 for upgrading occupational/career facilities and equipment in high schools on a city wide basis. Considerable innovation, modernization, and equipment have been supported by VEA seed monies. Management and accountability responsibilities of a system of such magnitude require substantial support both in hardware and software. Many innovative programs have been designed to provide a comprehensive career education thrust in the high schools.

Local enthusiasm has resulted in the participation of more than 20 of the 32 districts in a variety of career education, staff development and infusion efforts. A Staff Development Instructional Guide "Implementing Career Education" based on Ohio State Model I was written and developed in 1974 by the Career Education Unit for elementary, junior, intermediate and high school teachers, library media and guidance personnel, paraprofessionals, administrators, and supervisors. The guide is structured for 15 sessions of 30 hours to train 300-400 teachers a year, to infuse career education into the existing program.

Total Tax levy funds for Health Occupations Education 1980 based on unduplicated registers had the following distribution:

Exploratory	804	students	145,000
Introduction to Health Careers	4768	students	729,000
Dental Assisting	450	students	184,000
Emergency Medical Techniques	125	students	15,200
Health Assisting	1463	students	426,400
Medical Assisting	600	students	193,000
Medical Lab Assisting	347	students	38,900
Nurse Assisting	285	students	46,100
Practical Nursing	571	students	364,800
			$2,143,800

Total VEA funds for Health Occupations Education 1980 -$509,000.

There are a myriad of anticipated governmental, societal, educational and economic situations which will influence implementation of the proposed curriculum. Initially, there must be a fiscal structure available to finance the plan. Preparation for Health Occupations Education must be accepted as one of the clear and primary management objectives for the secondary level Health Occupations Education. There are developments occuring which will influence the cost effectiveness of occupational education. For instance--enrollments are expected to continue to decline on the secondary level through 1989. In contrast to the other Occupational Education areas, Health Occupations Education enrollments are low on the secondary level, 85% Health Occupation Education enrollments are on the post high school level. The number of classroom teachers is also projected to decline substantially among public secondary teachers because enrollment at this level is projected to continue to decline throughout the decade.

During the 1970's teachers' salaries rose annually but did not keep pace with the rate of inflation. They lost earning power in the 1970's, but won non-monetary benefits in teaching contracts. The decreasing earning power of teachers is expected to continue into the 80's. Not until 1989 are teacher salaries in constant dollars projected to run as high as salaries before the slack period of teacher demand. Salaries account for 80% of the total budget. The average salary in New York City is $28,738 plus 45% in benefits.

Staff development to orient teachers to Health Occupations Education would be an additional budgetary item. It is difficult to attract new teachers when the basic starting salary is $11,000. Another factor which will affect Health Occupations Education is the paucity of teachers who have the education, the experience and certification in their specialty. To teach in New York City High

Schools a teacher must become licensed to teach in Day High School by taking an examination in the subject area administered by the Board of Examiners.

- Between 1979-1988, a 14% reduction in secondary classroom staff is expected.
- Lay-off of teachers as enrollments decline and because of budget constraints.
- Average salary of classroom teachers is not keeping pace with inflation.

Average daily attendance rates in New York City which are below national rate in 14 of the 17 largest school districts, should be improved in order to receive state allocations which are based on average daily attendance.

Facilities and equipment in urban metropolitan areas are in poor condition in contrast to suburban and rural areas. There is a need for the means of transforming existing classrooms in academic comprehensive high schools into real skills laboratories. There is need for ways and means of improving counseling and guidance systems to provide more information about viable career options--an improved system to analyze abilities and aspirations of students. A study found that 50% of seniors interviewed stated their guidance counselors had no influence on their plans for the future. Academic students seem to have greater access to guidance counselors.

In New York City, the revised High School Diploma requirements for students scheduled to receive diplomas beginning June 1985 will have to meet the foreign language requirement of two credits. Students must also pass the required New York State Competency examinations to earn a diploma. Counseling and guidance services are most essential to assist students in the selection of area of concentration, as three-year sequence.

For implementation of the recommended Health Occupations Education curriculum, very strong financial support must be available. In light of the current local and federal budget reductions, major difficulties are foreseen.

References

1. Office of Career and Occupational Education, Comprehensive Annual Program Plan 1980 Board of Education of The City of New York.

2. Office of High School Organization and Budget Planning Comparative analysis The Organization of High Schools 1980-81, Board of Education, City of New York.

3. Office of Budget Operations and Review, A Functional Analysis of the 1979-1980 New York City Board of Education Budget, June 1980.

4. The State Education Department Understanding Financial Support of Public Schools 1978-1979.

5. United States Office of Education/National Institute of Education, Essays on Career Education, Northwest Regional Educational Laboratory, Portland, Oregon, April 1973.

6. Dearman, Nancy B., and Plisko, Valena White. The Condition of Education, A Statistical Report, National Center for Education Statistics, 1981 Edition.

WHAT ARE THE COST IMPLICATIONS? OR SURVIVAL OF HEALTH OCCUPATIONS IN THE FUTURE

Dorothy E. Fisk
Oswego County BOCES
Adult Education Center

We have been asked today to discuss the cost implications of the Health Occupations Educational Futuring Committtee's recommendations. When Sig called asking if I would consider speaking on this topic I said "Yes." Why? Well, financing of Health Occupations programs is one of my major concerns. As you will soon detect, this concern does not qualify me as an expert. Instead, I am a perpetual student and play the game as one would play with a rubiks cube. After twenty years in vocational education I still have not solved the problem, but who knows--we may have cut the odds and a breakthrough may occur next week or next year, or the year "2000."

My first action in the attempt to compile information for this paper was to call our BOCES business manager. My question, "Joe, can you tell me how vocational education will be financed in the future?" Joe, being the type of person he is, asked "Why?" By now Joe is aware of my deep interest in this subject, and when I ask questions he is immediately on his guard. He no doubt suspected that I had a grandiose program planned, and that the plan would cost money. I am certain you are all aware of how a business manager acts (or reacts) when you ask for money!

Once a more detailed explanation was furnished to him, he proceeded to explain the cuts in funding we are experiencing now, the cut-backs to expect in the future, and the "pay as you go" plan. His last words were "Why in the hell did you agree to discuss this topic. I wouldn't touch it with a ten foot pole."

The introduction thus far indicates little more than "doom and gloom," but those of us in vocational education, and particularly in Health Occupations, are not prone to sitting back and accepting what is. If we have a purpose and a plan for that purpose we will succeed, and we will find a way. We have all spent a great deal of time, study and effort in the development of a Health Occupations Education Curriculum for the future. We believe rapid changes will occur in the health care field, we understand what competencies health care workers will be expected to learn, and the bottom line is that our nation will not only expect, but demand high quality cost effective care in the future. In order to survive, all coordinators of Health Occupations will be forced to become experts in business management and administration, budgeting, cost effectiveness, business and educational trends.

The HOE coordinator expert must review the evaluation of the American school system. Certain basic principles emerge to guide us in the future development and future planning of HOE programs. We must provide leadership to assist the local, state and federal agencies in establishing sound principles of action and the means with which to implement these principles. Examples of these principles are:

Universal education is essential
Education should be free
The state has a responsibility
Local districts operate the schools
Federal participation is desirable
The school system should be extended

A firm understanding of these principles will permit and supply the element of professional guidance necessary for wise decision-making in the future.

The means to implement these principles spells MONEY. Money pervades all elements, including results. Money is the least common denominator of all that Health Occupations coordinators will do in the future. Money is the ultimate unit of measure.

In order to receive money for the proposed recommendations for the Health Occupations Education Curriculum we must plan carefully our funding presentation to "upper management" (local, state and federal agencies). Enough appropriate information must be given to allow for a favorable evaluation. The proposal is a selling document; the Health Occupations Education Curriculum is the commodity to be sold. A good proposal will cover five areas:

1. Need for the particular program,
2. Objective in terms of benefit to the local, state and national communities,
3. Design elements and necessary requirements,
4. Evaluation method,
5. Cost breakdown.

It is my belief that our futuring committee has successfully covered these five areas, including the last item--cost breakdown, and the resulting cost implications.

Several of our presenters have consistently stressed the need for careful consideration of training costs. The model subsequently developed by this committee has incorporated cost containment. Duplication of time, effort and resources has been eliminated. The model has a built-in flexibility which will encourage creativity in program planning, operation and evaluation. William H. Bently, in his text The Successful Vocational Education Program, lists three common approaches to budgeting.

1. A fixed amount is allocated to a given program and expenditures must be adjusted to that amount.
2. A careful analysis of program needs is classified by priorities as "essential," "needed," or "desirable." An estimate is made of the cost of meeting each need and forms the budget request.
3. Budget is based on that of the previous year, usually with a percentage increase.

Naturally, there are advantages and disadvantages to each of these three approaches. In my present situation, we work exclusively with the second approach. Each year a budget is developed for the Health Occupations programs offered in the Oswego County BOCES Adult Careers Center. This approach is definitely time consuming, requires considerable effort and planning, requires research and knowledge of local, regional and national trends, and finally, it requires the "nerve" to proceed as planned. This effort should not be considered a waste, since the knowledge gained of program needs and priorities will contribute much to better administrative decisions.

Peter Drucher, Managing in Turbulent Times, believes that productivity is the source of all economic value and that no system can survive a decline in the productivity of any one of its four key resources: capital, crucial physical assets, time and knowledge.

The HOE futuring committee's recommendaations include an increase in productivity. Our product will survive in the future because it will change with the future. We have planned for diversification into new growth areas, a simple matter of survival. We have planned for the labor shortage of young people available through a design of easy access to re-training. Our very basic core will include the basic elements of survival skills required by individuals in a rapidly changing "turbulent time." Finally, this curriculum also includes one very important additional factor; a self-destruct feature. If we determine a medical laboratory technician/assistant is no longer needed, this model can be eliminated and a robot training course can be inserted.

In summary the three questions:

1. What are the cost implications of the committee's recommendations?
2. Are the costs out of line?

3. Is it possible to reduce costs?

will be answered in the future. Certainlly all of our efforts have incorporated the first basic principle of economics--in order to operate a quality program adequate funding must be available.

It may be, as Joe predicted, that we will eventually develop a "pay as you go" system, but if we have an understanding of the basic principles of the American educational system, if we have utilized all the resources we have for planning, if we have a good product and are able to sell it successfully, the Health Occupations Education Curriculum model will survive the future.

CURRICULUM CONSTRUCTION COST FACTORS FOR HEALTH OCCUPATIONS EDUCATION

Joyce Lemieux
Northwest Technology Center
St. Lawrence County BOCES

According to the futuring report by the National Commission on Allied Health Education, there is no information available today on what constitutes a cost-effective program in allied health. Moreover, the criteria for measuring effectiveness still needs to be determined and operationalized. The intent of this presentation is to provide awareness for potential cost implications of the Health Occupations Education Futuring Committee's recommendations. More specifically it will deal with those costs that may be incurred with curriculum construction. My experience in curriculum construction has been with the development of learning activity packets for content and competency based coursework for students in occupational education. It has also been with the development of curriculum for students who articulate in programs within and between educational agencies. However, individual experience cannot uncover all the problems or provide all the answers. Hopefully, this presentation will stimulate thinking that will suggest possible revision of some recommendations and ways to save costs when costs are unavoidable.

Preliminary Recommendations

The HOE review committee deliberated for two years prior to recommending a reorganization of the HOE curriculum. For a more detailed description of the activities involved in the deliberations, reference is directed to the annual reports entitled Examination of the Health Occupations Education Curriculum From A Futurist Perspective I and II. For the purpose of limiting this presentation to a twenty minute time frame, the preliminary recommendations have been detailed into twelve specific areas. The rationale for this was to estabilsh more defined reference points when addressing cost factors. Following are the twelve recommendations for the new HOE curriculum and possible cost factors for each.

Recommendation 1

The revised HOE program should strike a middle course between competency-based and content-based organization.

Cost Factor. A revision of existing course outlines will require teacher time; particularly when the course is one that is content-based. Much research and planning money has already gone into competency-based education. One example of this is the ISSOE project that has been temporarily shelved. It is suggested here, that the ISSOE material already developed be utilized as the competency-based component of the health program. Some teachers have expressed concern because the method of meeting the enabling objectives (content-based) was unclarified. Perhaps consideration should be given to the development of a curriculum guide for the content-based aspect of ISSOE. The content-based guide could then accompany the competency-based modules as a package. In HOE, the use of ISSOE materials could be considered one method of containing costs that might evolve from this recommendation.

Recommendation 2

Instruction in HOE should be easily adaptable to changing practices and equipment.

Cost Factor. Module revision will be required as technology advances and change is effected in the health care delivery system. The revision of modules might require inservice for teachers who are unskilled in curriculum development. However, once the teacher has been taught the method of module construction, the on-going revision could be more readily incorporated within the planning period of the day. It might be profitable for local educational agencies to plan for one or two annual revision days for curriculum updating. For example, the Superintendent's Days in the Fall and Spring might be considered for reviewing and updating of curriculum. One suggestion for saving cost with this recommendation is to maintain open, harmonious communications with craft committee members who are employers of the health industry. It facilitates an equipment exchange program between education and industry.

Recommendation 3

Generic skills should be emphasized whenever possible because they are more readily adaptable to change.

Cost Factor. There is little cost involved because the recommendation calls for teaching basic principles rather than the skills that apply to a particular piece of equipment. For example, once a student has been taught the basic principle of making a patient's bed, the student should be able to adapt to any environment of the patient whether it is home, hospital or nursing home. Additional time (time is money) should not need to be spent by the employer on adaptation to a specific health facility. Another example is Interpersonal Skills. Once the student is taught how to recognize the need for personal behavior modification according to the patient's needs, then the individual is more flexible to a changing social environment. If there is any cost factor from this recommendation, it might be possible to absorb it with that of preparing teacher guides when considering recommendation 1. Beyond that, the recommendation for teaching basic principles very much depends upon the background of the teacher; that is, whether or not he/she is skill oriented or education oriented. Good sound teaching practice usually comes with teaching experience.

Recommendation 4

A wide variety of instructional strategies should be incorporated within the curriculum in order to make the material as interesting as possible to students. Cost Factor. Instructional strategies such as videotaping, simulation and computer assisted/managed instruction all represent dollars. Audio-visual materials, tutorial labs and the development of slide presentations are all costly items that can cause a single program to become out-priced. One suggestion for cost reduction would be a regional resource center where such materials would be made available once the initial developing process has occurred. Some states such as Georgia, Missouri and Ohio have already processed materials for use by other educational facilities. It is then a matter of becoming acquainted with available resources. One major way to minimize cost in curriculum construction is to refrain from re-inventing the wheel. Some methods for implementing this recommendation at no cost at all are the use of outside resource people, presentations by former students, brainstorming with teachers and students and role-playing. An example of role-playing is a recent activity used by our nursing skills teacher. Frustrated with an apathetic group of first year nursing students, the teacher solicited the aid of another nursing instructor when demonstrating the patient admission procedure. With the aid of such props as a bleached wig, heavy makeup, various other cosmetics and very bizarre behavior, the guest instructor was able to turn apathy into attentive participation. That role-playing left a lasting impression and facilitated the lesson on patient admission. The bonus was--no cost involved!

Recommendation 5

Provisions should be made in the new curriculum for the special needs of the handicapped, disadvantaged, adults and other under-represented segments of the population.

Cost Factor. This recommendation must be addressed in very general terms regarding specific handicaps. An example of the type of costs resulting from this recommendation would be a special stethoscope for the student who is hard of hearing. Also, any additional instruction that would be necessary to train the student in order to compensate for the handicap; that is, teaching the lip-reader to position self so that the patient remains in the student's direct line of vision at all times. Some handicapping conditions will require a lower student-teacher ratio which in turn will reflect in higher staff costs. Finally, added efforts should be made to develop an awareness on the part of persons with handicapping conditions as to their potential success in HOE programs. This may involve inservice for guidance counselors, revision of brochures or literature and presentations to audiences of people with handicapping conditions.

Recommendation 6

The student in specific occupational programs should be required to meet defined educational and performance objectives either through appropriate supervised clinical experience or through clinical competence demonstrated in the work setting.

Cost Factor. In terms of supervised clinical experience, staff costs are determined by the size of class enrollments. This cost factor is necessary and unavoidable. In order for students to meet performance objectives effectively and safely, a low student-faculty ratio must be maintained. This cost factor is most probably the one that dictates the operational cost of the health program because of the number of faculty needed for supervised clinical instruction. The presently recommended ratio is 8 or 10 to 1 so that a class of 24 or 30 would require 3 full time staff members. Until such time that appropriate simulation can replace the hands-on experience and as long as students need to gain that experience in the realistic work setting, clinical instructors will be required.

Recommendation 7

HOE teachers should have practical employment experience in their areas of speciality, plus adequate technical and general education as well as teacher preparation coursework.

Cost Factor. If the teacher certification requirements need strengthening/specification in regard to the area of teaching specialty, it might imply an increase in beginning salaries. For example, if an individual is employed to teach maternal-child health in a practical nursing program and that person is required to have employment experience in that area, it might be necessary for the teacher to seek part-time summer work in order to retain the teaching position. Should that be the case, the teacher might expect compensation for the required additional experience. The result of implementing this recommendation is a better prepared person for curriculum development.

Recommendation 8

Adequate continuing teacher education should be provided to prepare teachers for the revised HOE curriculum.

Cost Factor. In-service education monies will be required to compensate teachers for their time and effort in developing instructional strategies for the revised curriculum. This may take one of the following forms: reimbursement for registration fees, books and supplies for a workshop/conference, stipends for teacher participation or remuneration on a teacher salary schedule.

Recommendation 9

Institution located in geographic proximity which are offering related programs for the preparation of health care personnel should articulate to the maximum degree possible.

Cost Factor. Articulation practices between educational facilities carry high cost implications involving curriculum revision from both educational levels. In the federally funded articulation project between the St. Lawrence County BOCES LPN Program and the SUNY AG and Tech RN

Program, VEA money was appropriated for the following items:

1. salary for the project coordinator
2. compensation of nursing faculty for curriculum redesign
3. support for secretarial/clerical assistance
4. consultant and evaluation fees
5. miscellaneous costs such as office supplies, telephone, postage and printing, advertising
6. staff development costs

The budget requests for the project included funding for faculty members from both educational agencies who would be heavily involved in the curriculum development. Compensation was provided for release time and/or extra service as deemed appropriate by each agency. Initially, the curricula of both nursing programs was compared and analyzed to determine what areas could be dove-tailed and what repetitious content reorganized. This effort involved the participation of all faculty members. The most prudent investment of time and energy involving any articulation attempt is to develop the proper environment which will permit the growth of the project. Human nature being what it is, we all tend to protect our own territory and resent the intrusion by others attempting to bring about change. Until this resistance is overcome no true change will occur. Overcoming that resistance is costly in terms of human time and effort. The types of individual philosophies involved, will determine how smoothly and expediently attempts to articulate proceed. Until these attempts to articulate are experienced, one cannot possibly perceive the impact of roadblocks. Time is money and time setbacks can be costly.

Recommendation 10

Articulation of HOE programs with related secondary and adult programs should be pursued whenever possible.

Cost Factor. Planning and implementing articulation practices within an educational agency would appear far less costly than that of articulating programs in two different agencies. The reason for this is because the philosophical values of teachers within the same agency are more often compatible. Therefore, a more cooperative effort is put forth by the staff when analyzing and revising curricula. The process is simplified because when dealing with a single agency there can be no conflict caused by dissimilar regulations of multi agencies. For example, SUNY system vs. BOCES. Also, a single administrative structure, oftentimes being a single person leads to greater consistency and eliminates possible confusion. Once again, the fime factor is the critical issue in the sense that teachers have a mutual goal, are more geared toward productive work and reach their objectives more rapidly. The only dollar involvements would be compensation for teacher time spent on curricular revision outside of the regular call of duty and the employment of additional staff if more students enter a basic program as a result of articulation.

Recommendation 11

A statewide student evaluation system should be implemented in Health Occupations Education. The evaluation system should be appropriate to the content and skills to be assessed.

Cost Factor. The design, validation and implementation of a statewide testing instrument would necessitate time from teachers of the HOE programs. Their input at the state level would be critical for the desing of such an instrument because it is they who are the curriculum developers. If they are expected to participate, they must be compensated for their efforts through honorariums, consultant fees and reimbursement. Teachers, as curriculum developers, need to realize the importance of their contributions; especially when providing input at the state level. Teachers need to understand the role of the SED as being facilitative in nature rather than authoritative.

Recommendation 12

Close contacts should be maintained with Guidance Counselors for the purpose of helping students develop appropriate career planning skills.

Cost Factor. If HOE program teachers are involved with guidance programs to the point of increasing the teacher's student contact hours, then an increase in staff dollars might be justified. Should in-service programs for high school counselors be forthcoming, then it would seem that there would be an increase in the use of staff dollars for both the Bureau of Guidance and also for purposes of providing workshops or conferences as well as stipends for the participants of such programs. In order for the HOE curriculum to include instruction for career planning skills there would be a need for cooperative work efforts between HOE teachers, vocational counselors and home school counselors.

Summary

It should be noted that most of the major cost factors that are implicated by the Committee's recommendations are one-time-only occurrences or at least reduced following the initial expenditure. For example, the planning and implementation of a secondary/postsecondary articulation project in another county should not require the costs that were necessitated in the pilot articulation project in St. Lawrence County. One of the assessment factors in the project evaluation is the ease of replicability of the model program. It is a certainty that cost effectiveness was a major consideration when specifying factors for the evaluation process of the pilot project. One method of saving/reducing costs is to profit from the mistakes of others.

The future of allied health services depends on financial support for allied health education. According to most futuring reports, funds need to be provided for the following activities:

1. short term supplemental preparation for existing HOE personnel in order to promote the proper environment for accepting change.
2. in-service training programs to increase teachers skills as curriculum developers.
3. incorporation of new objectives in existing programs.
4. development of instructional modules in human values, health promotion and adaptable delivery systems.
5. acquisition of equipment necessary to implement the revised curriculum; e.g. electronic thermometers and computers for CAI.

The first four factors involve curriculum construction and the cooperative involvement of teachers. Teachers are more likely to accept the recommendations to reorganize curriculum if they view the State Education Department as a facilitative agency rather than a regulatory force. It is the opinion of this writer that the State Education Department should activate ways to change its image if the curricular reorganization is to be accepted at the local level. In Willard Daggett's presentation The Challenge Of Change, he said, "Before exposing teachers and administrators to how the program will be organized or structured, communicate and gain support of what should be included." He went on to say that the most difficult step would be the development of a workable structure because it would affect what/how the teacher and the administrator do on a daily basis. It has been acknowledged that there will be inevitable costs with curriculum construction. To be as efficient and cost-effective as possible, there must be utilization of the number one natural resource, the teacher. When hundreds of unneeded, frustrating hours are spent correcting misinformation and generating productivity in order to establish a conducive climate for effective curriculum construction, the cost increases. Hopefully, this presentation has provided you with some thought-provoking ideas; ideas which will stimulate you to suggest possible revisions of the recommendations, ways to reduce unavoidable costs and ways to facilitate the implementation of a restructured HOE curriculum.

COST IMPLICATIONS OF HEALTH OCCUPATIONS REVIEW COMMITTEE RECOMMENDATIONS

Joan B. Penrose
New York Institute of Technology

In order to:

...provide greater options for students

...provide rapid updating to meet technological change

...provide economy of program offerings

...make it easier to maintain viable programs where numbers of students are small

...emphasize generic skills and minimize concentrations of excessively discrete specific training

The Health Futuring Committee recommends:

1...that the HOE curriculum be reorganized to meet both present and changing needs in two categories:

a) direct patient care

b) laboratory and support services

2...the development of a core of competencies common to each of the two basic categories.

3...the development of a core of competencies common to all Health Occupations Education programs.

4...the development of competencies common to clusters within the category direct patient care, e.g. nursing, rehabilitation, medical and dental assisting (clinical and administrative).

5...the development of technical competencies identified for each Health Occupations Education job title.

6...required prerequisite general occupational education core skills for all Health Occupations Education students.

7...that the curriculum format be a combination of competency based and content based similar to the Business Education curriculum format.

8...that a range of instructional strategies be used by teachers including role-play, simulation, brainstorming and video plus computer assisted and computer managed instruction.

9...that provisions be made to offer accessibility to special and underrepresented groups.

10...that adequate guidance and counseling be offered to students.

11...that supervised clinical experience be required for students in the direct patient care core.

12...that career ladders, lattices and articulation patterns be established.

13...that effective teacher education and inservice education be provided.

Cost Implications for Curriculum Development

Cost categories:

1. Cost for curriculum writing and review teams
2. Cost for full time Curriculum Coordinator
3. Cost for SED Bureau staff support time
4. Clerical, duplicating, printing costs
5. Team leader in-service training workshops
6. Possible summer workshops for reviewing, revising and finalizing curricula
7. Cost of acquisition of materials and resources
8. Cost of consultants from the health industry as needed

Assumptions:

1. A given curriculum format style is to be followed (See p. 1, #7).
2. The curriculum writing will be done "at home," teams being formed in differing geographical locations and coordinated locally by team leaders.
3. The work of team leaders and of all teams is to be coördinated by a Curriculum Coordinator.
4. Planning and coordinating functions are to be carried out primarily by the Curriculum Coordinator and are to be supplemented/supported by SED Bureau Staff.
5. Both to a) insure input from teachers across the state and b) to insure a two-step writing and review procedure each curriculum area will be written initially by teachers from one geographical area and will then be reviewed by teachers from another geographical location.
6. Maximum use will be made of existing resources for curriculum development, both in SED and in LEA's.

Planning and Coordinating functions: Curriculum Coordinator with support from SED Bureau staff, will:

1. List the priority order in which curricula (from the sunburst diagram) is to be developed.
2. Set a time line for completion of work.

3. Write detailed guidelines and develop a model for curriculum format to be followed by writing teams.
4. Research, acquire, compile and make available resources for curriculum writing teams, e.g. ISSOE, V-TECS, Mid-America Consortium, textbooks, SED syllabi, existing LEA course curricula.
5. Identify and secure teachers for curriculum writing and reviewing.
6. Identify and secure team leaders that can coordinate the writing teams.
7. Make specific assignments to team leaders with set timelines.
8. Provide in-service training for team leaders.
9. Help team leaders provide inservice for team teachers.
10. Facilitate and monitor writing of curriculum teams.
11. Edit and facilitate uniformity in style and detail of written work.
12. Maintain accountability in work flow and in quality control.
13. Seek cooperation from LEA curriculum coordinators and directors to gain support for curriculum development tasks.
14. Incorporate legal requirements,
15. Write detailed job descriptions for teacher writers, team leaders and curriculum reviewers.

Curriculum Development Steps: to develop a combination competence based and content based curriculum in the style of the Business Education curriculum, the following steps are identified:

Step One:

Develop course outline to include:

- module and topic outline
- overview of course
- estimate of teaching time
- recommended grade level

Step Two:

Develop module outline to include:

- overview of module
- estimated teaching time
- content outline
- competencies to be developed
- affective domain emphases
- cognitive learnings
- psychomotor domain

Step Three:

Develop a topic sheet to include:

- student performance objectives
- enabling objectives

Cost estimates for Curriculum Development:

There are many variables influencing these estimates as follows:

1. Differing degrees of difficulty of subject matter.
2. Differing writing abilities leading to differing needs for editing, revision, etc.
3. Effectiveness of team leader and teacher in-service training (detailed enough writing guidelines, clear enough model curriculum development format).
4. Varying usefulness of existing materials and resources with which to start. NOTE: The task of "research, acquire, compile and make available resources for writing teams..." (see Planning and Coordinating functions #4) is critical to effectiveness of writing teams.
5. Differing quality of LEA support.
6. Finally, the time line to be set by the Committee and SED will influence estimates for curriculum completion and curriculum implementation.

Cost Implications of Key Recommendations

Recommendation 8: That a range of instructional strategies be used by teachers including role-play, simulation, brain-storming and video, plus computer assisted and computer managed instruction.

This objective can be fostered in several ways. Perhaps a primary effort should be through inservice education. A "travelling road show" demonstrating for teachers in each region how to use effectively a variety of teaching/learning strategies could be developed. Orientation to educational technology and media including computers should be included. Inservice funds might be sought for this purpose through the state-wide inservice education committee and should aim to reach as many Health Occupations Education teachers as possible. This inservice goal, it is noted, is probably generic across occupational areas. (See discussion on cost implications of inservice education-recommendation #13 and alternatives).

Note: As all the occupational areas are considering an OE core, an estimate for its development by HOE is, at this time, tabled.

A central collection and dissemination of teaching ideas, strategies and resources could be developed to assist teachers to increase their range and vary their selection of teaching strategies. Existing materials, including those available through various curriculum networks, could be identified and results disseminated. Cost for such a resource center that would serve all of occupational education should be explored.

Recommendation 9: That provisions be made to offer accessibility to special and underrepresented groups.

Again, inservice education is suggested to orient and train HOE teachers to work effectively with students with special learning needs and/or with groups (sex and race) formerly underrepresented in HOE programs. Teachers now might avail themselves of special workshops in the regions dealing with the handicapped (SETRC) and with Title IX issues. LEA's must take on substantial responsibility for facilitating accomplishment of this recommendation. The Committee should take this inservice need to the Statewide Inservice Committee for support in accomplishing this objective which, as recommendation 8, is one that applies across occupational areas. Certainly, strategies for working effectively with minorities (including underrepresented sex groups), disadvantaged, students with both mental and physical handicaps and special learning needs and adults must be seen as a priority for inservice education as more and more students from these special and underrepresented groups enter Health Occupations Education and other Occupational Education classes. Credit for college coursework on related topics might motivate teachers to update themselves in this area. (Again, see discussion of cost implications of inservice in discussion of recommendation #13).

Recommendation 10: That adequate guidance and counseling be offered to students.

Working through existing structures and delivery systems, counselors from home schools and BOCES should receive continuous information with regard to opportunities and options for students in the Health Occupations Education field. Responsibility should be shared by the Health Occupations Education Curriculum Coordinator and representatives of the appropriate Occupational Education Bureaus to disseminate this information to the Division of Guidance. The Division of Guidance and the Division of Occupational Education Instruction, working in concert through their counterparts at the regional and local levels where most of LEA's have informational delivery systems, should achieve this goal without any additional cost factor. Well informed educators and counselors at the state, regional and local levels must provide the basis for accomplishing this objective. Identifying what groups need this information and plugging in briefing sessions to already established meeting patterns (e.g. monthly guidance counseling meetings at local BOCES centers, regular faculty meetings, etc.) should be accomplished without additional cost. Printed material interpreting the opportunities and options in Health Occupations should be updated and disseminated through existing information dissemination systems on an ongoing basis.

Recommendation 11: That supervised clinical experience be required for the direct patient core.

Clinical supervision makes Health Occupations Education one of the most expensive occupational areas because of the necessary teacher/student ratio of approximately one clinical supervisor to ten students. There is virtually no way to reduce this cost. It is an essential cost to assure needed training, supervision and evaluation of students in training. While clinical supervision can be supplemented by work-study programs, it cannot be supplanted by them.

Recommendation 12: That career ladders, lattices and articulation patterns be established.

In keeping with this recommendation and with Regents policy, all means possible should be explored to promote articulation, not only vertically between secondary and post-secondary programs but also horizontally between programs at any one level. The principle of working through existing bureaucratic structures and delivery systems suggests the following cost-free activities which will work toward accomplishment of this objective:

1. Regional planning offices could sponsor and require region-wide articulation planning committees to formulate plans for articulation between secondary and post-secondary schools and steps for implementing the plans.
2. Appealing to and building upon inherent motivation of teachers and administrators for recruitment in a declining student market should encourage participation in articulation planning.
3. SED might require of LEA's and of post-secondary institutions for registration of programs or receipt of funds, active participation in articulation planning committess.
4. Implementation of competency based vocational education programs at both secondary and post-secondary levels should enable teachers and administrators easily to identify articulation patterns.

5. The HOE program with its series of cores and "snap-ons" will be an excellent model for a curriculum development pattern that facilitates identification of career ladders, lattices and articulation patterns.
6. Identification and dissemination of established articulation plans should assist teachers, guidance counselors and articulation planning committees to move towards implementing this recommendation.
7. This is another objective towards which cooperative work between the Division of Occupational Education and the Division of Guidance and between their counterparts regionally and locally can bring effective counseling and placement of students to facilitate student career development.

Recommendation 13: That effective teacher education and inservice education be provided.

To implement this objective the Committee should recommend that the following activities be pursued:

1. That SED require of all teacher certification programs adequate pre-service teacher education to accomplish the following:
   - a) development of a variety of teaching strategies and use of educational technology (see Rec. #8).
   - b) development of strategies to educate effectively special populations (see Rec. #9).
   - c) development of strategies to help teachers assist their students' optimum career development (see Rec. #10).
   - d) development of understanding of the process of futuring curriculum development.

   New teachers whose pre-service education has covered these areas won't need inservice for thse aims when they enter the profession. Thus, important objectives would be achieved without later costs.
2. That inservice education monies be sought to accomplish the various recommendations of the Committee including:
   - a) implementing the new curriculum.
   - b) using a variety of teaching strategies and educational technology (see Rec. #8).
   - c) working effectively with special groups (see Rec. #9).

Cost Implications and Alternatives:

Traditional inservice education is costly and time consuming and must be carefully designed. To increase cost effectiveness, inservice might be designed to accomplish a "ripple" effect so that participants act as "change agents" and carry back strategies to "teach" fellow teachers at LEA sponsored faculty meetings or workshops.

Alternatives should be sought to "stretch" inservice dollars in order to help majority of teachers achieve the several different objectives the Committee recommends. Building upon existing structures and delivery systems on which to "piggyback" accomplishment of the Committee's recommendations is an important, sound and cost-effective way of achieving recommendation #13. Gaining access to professional association meetings, NYSHOEA, NYSOEA, PN Councils, VEA's, etc. as well as LEA Superintendent's Day conferences and June workshop days is an effective way to gain wider teacher participation. For the relatively low cost of a "travelling road show," some inservice education might be achieved economically.

There should be considered a combination of very carefully designed traditional inservice education offered during summers, on extended weekends or afternoons during the school semester together with exploration of shorter inservice offerings, "travelling road show" presentations, Bureau dialogues, etc., delivered locally in cooperation with LEA's professional organizations. Also, encouragement of college course credit offerings in areas of concern may motivate teachers to update their teaching effectiveness.

APPENDIX

FUTURING PROJECT: Occupational & Practical Arts Education

Comprehensive Instructional Development System
Oneida, Herkimer & Madison BOCES
Box 70
Middle Settlement Road
New Hartford, N.Y. 13413
(315) 792-4608

Volume 9 No. 9

HEALTH OCCUPATIONS - Seventh Committee Mtg.

Date October/November 1981

Editor: Elaine Senn
Instructor, Dental Assisting
Broome-East Tioga
Occupational Center
Upper Glenwood Road
Binghamton, New York 13905
(607) 729-9301

Co-Editor: Mara Zibrin
The Graduate School and University Center
of the City University of Newark
Institute for Research and Development
in Occupational Education
33 West 42 Street
New York, New York 10036
(212) 840-7997

Health Occupation Education Committee Joins Comprehensive Futuring Project

The Statewide Health Occupations Education Review Committee met in Albany N.Y. on September 24, and 25th 1981 to consider the objectives for Occupational and Practical Arts Education. The comprehensive futuring project reviewing curricula in Agricultural Education, Distributive Education, Home Economics Education, Industrial Arts Education, Trade Education and Technical Education also met in Albany at the same time to discuss these issues.

The Committee discussed the results of a Delphi procedure to which the Committee and regional facilitators had responded by mail. Much of the discussion dealt with the ratings and ranking assigned by the Health Occupations Committee and by the other Committees to a set of objectives previously devised by vice-chairs and chairs of all futuring Committees. Inconsistencies in the ratings assigned by the Health Occupations Committee, and variations between the rankings of the Health Occupations and other Committees were discussed. These discussions were followed by a final ranking made by the Health Occupations Committee. These rankings were then transmitted, through the cooperative Committee consisting of the chairs and vice chairs of all Futuring Committees, to the Administrative Committee for eventual resolution.

SUPERVISED CLINICAL EXPERIENCE

At the same meeting the issue of whether supervised clinical experience was to be required for the various health occupations programs was considered. Prior to the meeting a review of research on the effectiveness of supervised clinical experience had been prepared for the Committee, and various position papers on this issue distributed. Considerable clarification of this complex topic was achieved at this meeting. A motion which would express the will of the Committee was made and discussed extensively. In view of the importance of supervised clinical experience to prepare for performance in the health occupations, and since this was an inadequate amount of time to explore all of the ramifications of this issue the Committee postponed final decision until the November meeting in order to study this issue further over the next few weeks.

NOVEMBER MEETING

The next meeting of the Health Occupations Education Review Committee will be held on November 19 and 20th, 1981 at the Albany Thruway House in Albany, New York. Regional Observers will meet at the Thruway House on the evening of November 18, 1981. Among the items to be considered at this meeting will be the conclusion of the Committee's discussion of the Supervised Clinical Experience issue, the role of Health Occupations Education within the Occupational and Practical Arts Education program, articulation with post-secondary and general education, teacher education, qualifications and certification. The Committee's examining and other vocational and practical arts programs also will be meeting at the same time at the Albany Thruway House.

HEALTH OCCUPATIONS EDUCATION

Futuring Meeting Highlights

The Futuring Committee for Health Occupations Education met in Albany on September 23-24, 1981 to make their recommendations regarding the purposes of Occupational and Practical Arts Education and to group these purposes into the domain of either Practical Arts, or Occupational Education or both.

With the intent of establishing a sound philosophical base for the role and purposes of Occupational and Practical Arts Education in the future, this Committee recommends that the highest priorities be given to:

*Basic technical skills which are common to a cluster of jobs.
*Employability skills, such as promptness, dependability and self-reliance.
*Abilities in problem solving, communication, decision making, interpersonal relationships and resource management.
*Basic reading, writing and mathematics skills.
*Technological literacy.
*Basic skills in use of common hand tools and machines; as well as understanding of various materials and work processes.

Other purposes of medium and lower priority were also identified.

Purposes which identified the role of Occupational and Practical Arts Education in service to Business/Industry and Society. These purposes were also prioritized. Those with the highest priority were:

*Be responsive to the needs of emerging occupations.
*Produce a supply of qualified graduates adequate to meet the employment needs of business and industry in the State.
*Provide program offerings which are based upon employment opportunities in the region or State, and not simply on student interest.
*Provide services which assist the student in making the transition from school to employment and/or to more advanced education.
*Promote the right of every individual to a chosen career without regard to traditional barriers.
*Provide training or retraining for unemployed/underemployed.

As the committee discussed the grouping of these purposes, it became apparent that the majority of these purposes applied to both Occupational and Practical Arts Education.

The Administrative Committee has reviewed and is in the process of rewriting the purposes based upon the recommendations of Health Occupations Education plus the other Instructional Committees. Their recommendations will be reviewed for your reactions at regional meetings scheduled for this spring. Purposes will not be finalized until September 1982.

NOTE: The January meeting has been changed from January 14-15, 1982 to January 13-14, 1982.

FUTURING PROJECT: Occupational & Practical Arts Education

Comprehensive Instructional Development System
Oneida, Herkimer & Madison BOCES
Box 70
Middle Settlement Road
New Hartford, N.Y. 13413
(315) 792-4608

No. 9

HEALTH OCCUPATIONS-EIGHT COMMITTEE MTG.

Date DECEMBER/JANUARY 1981-82

itor: John C. Thomas
Coordinator of Continuing Education
and Special Projects
Islip Occupational Center
375 Locust Avenue
Oakdale, New York 11769
(516)567-0900

Co-Editor: Mara Zibrin
The Graduate School and University Center
of the City University of New York
Institute for Research and Development
in Occupational Education
33 West 42 Street
New York, New York 10036
(212) 840-7997

Those of you on our regular mailing list have no doubt noticed a change in appearance of both this and the preceding Newsletter. As we indicated in our last edition the Health Occupations Education Futuring Committee is now one of seven Committees in Occupational and Practical Arts Education reviewing curricula from a futurist perspective. Since all of the Committees are distributing a Newsletter it seemed simplest to have all of them prepared by one organization. Since the Oneida-Herkimer-Madison BOCES was preparing the newsletters for the other futuring Committees it was most economical for them to prepare the Health Occupations Newsletter as well. For that reason there has been a change in the format of this and succeeding Newsletters for the duration of the project.

These changes in the preparation of the Newsletter, unfortunately, led to a delay in the dissemination of our previous edition. Our apoligies for that delay. We hope that by this time the administrative changes have been clarified and that there will be as little delay as possible in disseminating this Newsletter.

Education and Qualifications

The Committee considered the issue of teacher qualifications in the revised Health Occupations Education Curriculum. Since the Health Occupations programs prepare youth and adults for entry level jobs in health care facilities it is vitally important that teachers have practical on-the-job experience so that the curriculum can be made relevant to students preparing for employment. Simultaneously, it was considered important for Health Occupations teachers to have adequate general education preparation to be able to adapt to the rapid pace of change in the health occupation and to prepare students with adequate communication, decision making and other generalized skills. Furthermore, it was considered important for health occupations teachs to have adequate teacher education preparation so as to be able to instruct students with the most up-to-date pedagogic procedures.

The importance of adequate inservice teacher education was also discussed. It was reasoned that the revised Health Occupations curriculum will require teachers to familiarize themselves with areas of knowledge, skills and competencies for which they previously were unprepared. It was, therefore, considered vital for adequate inservice teacher education to be implemented to prepare teachers already in the field to present the revised Health Occupations Education curriculum as effectively as possible. This rationale led to the following Committee recommendation:

Committee Recommendation: The Committee recommended that Health Occupations teachers have practical employment experience in their areas of speciality, adequate technical and genral education, as well as teacher preparation. The Committee further recommended that adequate continuing teacher education be provided to prepare teachers for the revised health occupations education curriculum.

Supervised Clinical Experience

Since Health Occupations Education program graduates often are placed in situations having life or death consequences for the patients or clients they serve, the Committee considered the desirability of including supervised clinical experience as a component of Health Occupations Education programs. The Committee voted to endorse supervised clinical experiences for those programs preparing for occupations have direct clinical contacts with patient populations and suggested that such experiences may be omitted for occupations without such contact. The specific motion passed by the Committee was as follows:

> Committee Recommendation: "Appropriate supervised clinical experience should be required to meet defined educational and performance objectives or clinical competence demonstrated in the work setting in the following occupations: Dental Assistant Clinical, Medical Assistant Clinical, Podiatric Aide, Licensed Practical Nurse, Nurse's Aide, Geriatric Aide, Psychiatric Aide, Homemaker/Personal Care Services Provider, Home Health Aide, Emergency Medical Technician, Physical Therapy Aide, Rehabilitation Aide and similar occupations. The competence must be demonstrated to a certified (licensed) teacher-evaluator who is a qualified health professional. The following programs will not tbe required to have supervised clinical experience, but will be required to meet the usual performance and educational objectives: Dental Administrative Assistant, Medical Administrative Assistant, Ward Clerk, Recreational Aide, Dental Laboratory Technician, Medical Laboratory Technician, Pharmacy Aide, Central Supply Aide, Morgue Aide, Orthopedic Aide, EEG Technician, EKG Technician, Occupational Therapy Aide, Orthotics Prosthetics Aide, Respiratory Aide and similar occupations."

9th Committee Meeting

The Health Occupations Education Review Committee will hold its 9th meeting on January 13th and 14th 1982.
The major topic for that meeting will be the issue of articulation of the health occupations program with secondary and postsecondary education on the one hand and with general education on the other hand.

Next Meeting of the Futuring Committees:

January 13-14, 1982, Albany N.Y.

FUTURING PROJECT:Occupational & Practical Arts Education

Oneida, Herkimer & Madison BOCES
Box 70
Middle Settlement Road
New Hartford, N.Y. 13413
(315) 792-4608

No. 10

Health Occupations - Ninth Committee Meeting

Date February/March 1982

Editor: Beverly H. Delano
Health Occupations Education Coord.
Ulster County BOCES
Occupational Center
Route 9W
Port Ewen, New York 12466
(914)331-6680

Co-Editor: Mara Zibrin
The Graduate School and University Center
of the City University of New York
Institute for Research and Development
in Occupational Education
33 West 42 Street
New York, New York 10036
(212) 840-7997

Committee Considers Articulation, Evaluation, & Guidance Policies

The Health Occupations Education Review Committee met in Albany, New York from January 12th - 14th. The topics addressed by the Committee included articulation with both post secondary and other related secondary adult programs; student evaluation policy; and the place of guidance in the revised Health Occupations Education curriculum. The Committee received input from a variety of experts in these areas including presentations from State Education Department staff and from both State University of New York and City University of New York officials. The Committee also heard presentations from specialists responsible for related secondary programs such as those in Health Education, Science Education, Home Economics Education and Business Education.

Recommendations for Articulation

The Committee recommends that institutions located in geographic proximity which are offering related programs for the preparation of health care personnel, articulate to the maximum degree possible. Such articulation should have twin purposes: to reduce unnecessary duplication of instruction, and to maximize career mobility to the fullest extent. New programs applying for approval/registration and existing programs applying for re-approval/re-registration should be required to submit an articulation plan before action is taken by the State Education Department.

The Committee also recommends that articulation of Health Occupations Education programs with related secondary and adult programs be pursued whenever possible to reduce duplication of program competencies. Health Occupations Education programs should specify the distinction between knowledge and skills to be covered in the Health Occupations Education curriculum and those in other programs of study.

Recommendations for Student Evaluation Policy in Health Occupations Education

The Health Occupations Education Review Committee recommended that one essential consideration in implementing student progress assessment in the revised program shall be assessment of all essentials for safe practice in each curricular area. That is, those practices, skills and areas of knowledge judged necessary for safe care of clients/patients must be included in the evaluation. All students will be required to attain mastery, at a satisfactory level, of these practices.

The Committee further recommended that the evaluation system be appropriate to the content and skills to be assessed. That is, where mastery of a clinical skill is assessed the evaluation should be in the form of examining the behaviors in a context similiar to that in which the skill is to be practiced in the field. On the other hand, where the content is in the form of knowledge or skills required in the future, a traditional evaluation instrument for such content (multiple-choice, short answer, and essay) may be appropriate.

Irrespective of the particular evaluation strategy selected, the Committee recommends that the examination be prepared with all necessary concern for its reliability, validity and objectivity of scoring and administrative procedures.

Finally, the Committee recommended that evaluation of competencies be implemented on a statewide basis. The evaluation process selected should take into account the variety of student populations enrolled in the various programs and, where feasible, provide examination procedure options appropriate to those different populations.

INSERVICE EDUCATION SURVEY

Enclosed with this Newsletter issue is a survey form to obtain your ideas about inservice education programs you would like to have available in the near future. Please read and complete form, insert it in an envelope addressed to the EDITOR of this Newsletter, and mail prior to March 1, 1982.

Guidance

The Committee also discussed the importance of providing adequate guidance services for the Health Occupation Education curriculum. Following input from a representative of the Guidance Bureau and discussion, the Committee recommended that close contacts be maintained with guidance counselors in New York State for the purpose of keeping the guidance community informed regarding the revised Health Occupation Education program. It should be noted that guidance counselors should become familiar with Health Occupations Education policies, procedures and curriculum options at least a year in advance of their implementation in order to help students plan their programs of study adequately. The Committee recommends continued close contact with the guidance community to exchange information regarding the health care industry's personnel needs in the different regions of the state and available programs preparing students for those positions. Close articulation with guidance counselors is suggested to help students develop appropriate career plans in the health occupations.

The Committee also recommends collaboration with guidance counselors to help students develop appropriate career planning skills.

Regional Hearings

The preliminary recommendations of the Health Occupations Education Review Committee will be disseminated to the field during March 1982. The report will be made available to all Health Occupations Education teachers, administrators, persons on the mailing list of each Regional Observer, and other interested individuals in the health occupations community. During April, May and June 1982 hearings concerning the Committee's preliminary recommendations will be held in each of the 13 New York State planning regions.

The meeting will be chaired by the Editor of the Newsletter, and have representation from the Health Occupations Education Section of the State Education Department and from the Institute for Research and Development in Occupational Education of the City University of New York. All interested individuals should read the preliminary report carefully, and attend these meetings so as to provide reactions as desired to the Committee's preliminary recommendations.

The list of dates for each of the Public Hearings in the various regions is as follows:

1982 Date	Region	Location
April 20	4	Albany
April 21	3	Poughkeepsie
April 27	2	New York City
April 28	2	New York City
May 4	1	Suffolk
May 5	1	Nassau
May 11	10	Rochester
May 12	12	Buffalo
May 13	13	Olean
May 18	6	Watertown
May 19	6	Potsdam
May 20	5	Plattsburgh
May 25	7	Utica
May 26	9	Syracuse
June 1	11	Corning
June 2	8	Binghamton

Present plans call for a total of three Committee hearings at each site, the first occurring at 9:00 a.m., the second at 3:00 p.m., and the third at 7:30 p.m. Please see our next Newsletter for specifics regarding meeting sites.

RESPONSE CARD

A self-addressed stamped post card is attached to this Newsletter to enable you to voice your reactions to any aspects of the Committee's work. A portion of every Committee meeting is devoted to reports of reactions from the field. So please "write on" about any part of the Committee's work.

FUTURING PROJECT: Occupational & Practical Arts Education

Oneida, Herkimer & Madison BOCES
Box 70
Middle Settlement Road
New Hartford, N.Y. 13413
(315) 792-4608

No. 11

HEALTH OCCUPATIONS - TENTH COMMITTEE MEETING

Date APRIL/MAY 1982

Editor: Dr. Ruth-Ellen Ostler, Chief
Health Occupations Ed. Section
Bureau of Trade, Technical & Health
Occupations Education
New York State Education Dept.
99 Washington Avenue
Albany, New York 12230
(518)474-1711

Co-Editor: Mara Zibrin
The Graduate School and University Center
of the City University of New York
Institute for Research and Development
in Occupational Education
33 West 42 Street
New York, New York 10036
(212) 840-7997

PROGRAM COSTS AND COMMISSIONER'S REGULATIONS CONSIDERED AT MARCH MEETING

The Health Occupations Education Review Committee met from March 16th-18th in Albany, New York. The Committee discussed a number of issues addressed by the other futuring Committees of the comprehensive futuring project, and in addition considered a number of matters pertinent only to Health Occupations Education.

Comprehensive Futuring Issues

The Committee voted to add a number of categories to the Occupational Education core identified by the other committees, as reported by the members appointed to the special Futuring Project Task Force on "Core Competencies," Sandra Benedict and Joan Penrose. In general these categories had been included implicitly. The categories included the following: Adaptability to Change, Consumer Skills, Resource Management, Legal Literacy, and Safety. The Committee also added subsidiary concepts under the general category of "Computer Literacy" to the Occupational Education core since these had been implicit in the Committee's prior discussion. The Committee voted not to recommend the addition of the following as separate categories: Leisure Time, General Economic Concepts, and Personal Safety.

The Committee then discussed the report of action by the "Alternative Delivery Systems" task force, presented by Donna Ahnert, who with Edmund McTernan were the Committee members appointed to this special task force, convened to study recommendations from all instructional committees in the comprehensive futuring project. The HOE Committee suggested that the basic concepts covered by these statements be taught only by teachers with competence and preparation in each of the areas as determined by state regulations. Finally, the Committee suggested that Health Occupations Education teachers be responsible for teaching the related applications of these concepts within Health Occupation Education programs.

The Committee also reviewed its recommendations for articulation, made at the last Committee meeting, and forwarded these in appropriate form to the administrative committee. The discussion of articulation completed the Health Occupations Education Committee's consideration of topics common to the deliberations of the other committees during this session.

Cost of Committee Recommendations

The Committee discussed the cost implications of its recommendations. It was anticipated that the development, implementation, and operation of the revised program will be somewhat more cost-effective than in the past, and involve more efficient use of time, staff, facilities, and common curricular units wherever possible. It was felt that effective implementation of the Committee's program recommendations should prove to be "cost saving" in that graduates would be more adequately prepared to adapt to rapid changes as they occur in the health field rather than to render obsolete health care to the population of New York State.

The Committee also felt that significant cost benefits will accrue when the recommended process for continual revision of the curriculum is in place, making it possible for students to keep abreast of the rapidly changing practices and procedures in the health field.

Commissioner's Regulations

The Committee discussed the need for adjustment of the Commissioner's Regulations concerning Occupational Education. It was decided that modifications of the regulations should not be proposed at this time for Health Occupations Education. It was felt to be more advisable to recommend modifications of all Occupational Education programs at one time, rather than to offer separate recommendations for each program.

Input from the Field

Please send your ideas, suggestions or reactions directly to:

Dr. Williard R. Daggett, Chief Bureau of Occupational Educational Program Development
New York State Education Department, Rm. 1621
99 Washington Avenue
Albany, NY 12234
(518) 474-4802

In addition, Committee members urge all interested parties to participate in the series of Regional Public Meetings beginning in Region 4 on April 20 and concluding on June 3 in Region 13. If you are unaware of the Regional Meeting dates, please contact the editor of this newsletter.

Chairman Robert Graham has asked that all constituencies be alerted to the fact that the reactions to the Committee's preliminary recommendations are especially crucial at this time. Dr. Graham stressed that all comments and suggestions will be considered carefully at the last meeting of the Committee in June. The Committee will review each preliminary recommendation and modify or accept it as stated for inclusion on the list of the Committee's final recommendations to be presented to the Board of Regents.